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Fig. 1A PRIOR ART

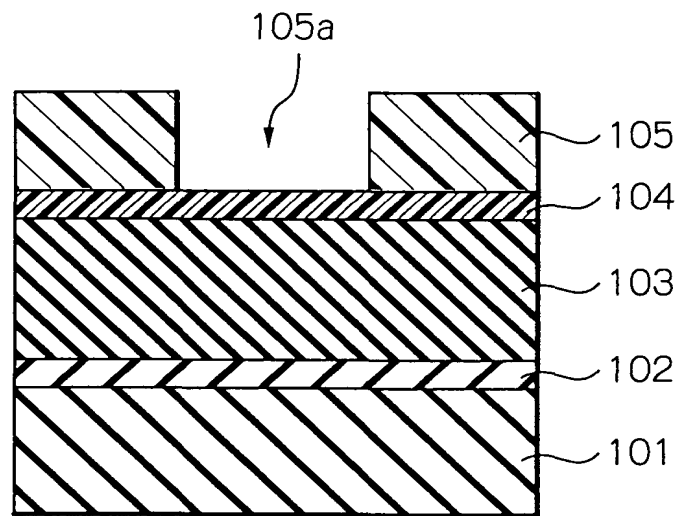
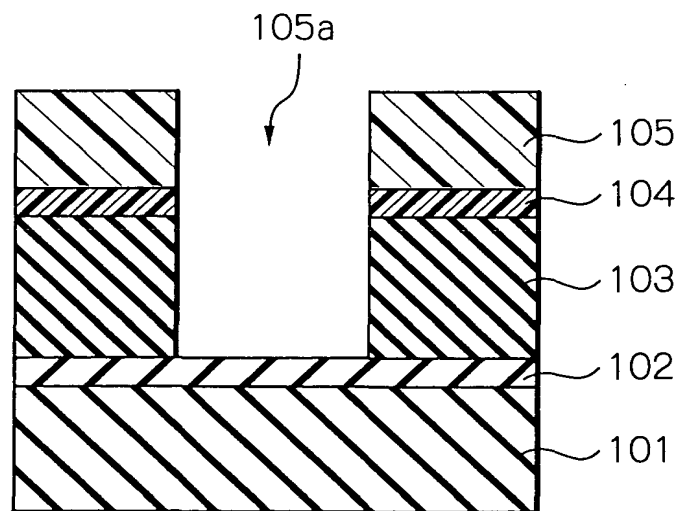


Fig. 1B PRIOR ART



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Fig. 1C PRIOR ART

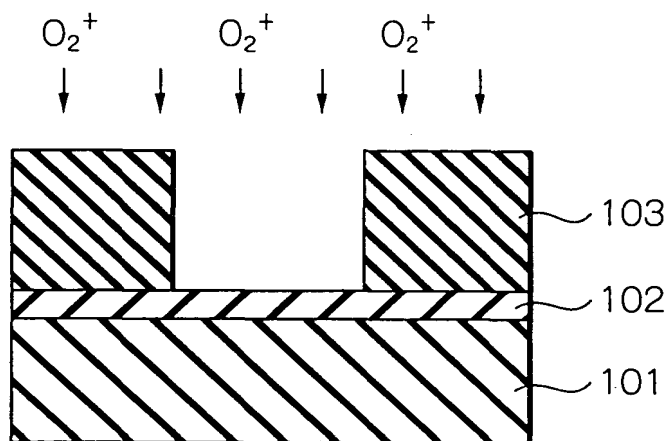
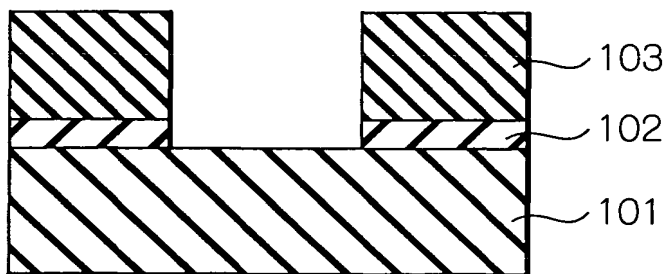


Fig. 1D PRIOR ART



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Fig. 1E PRIOR ART

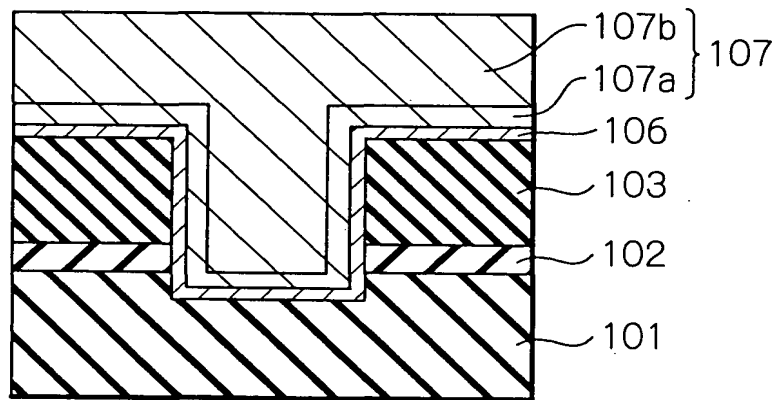
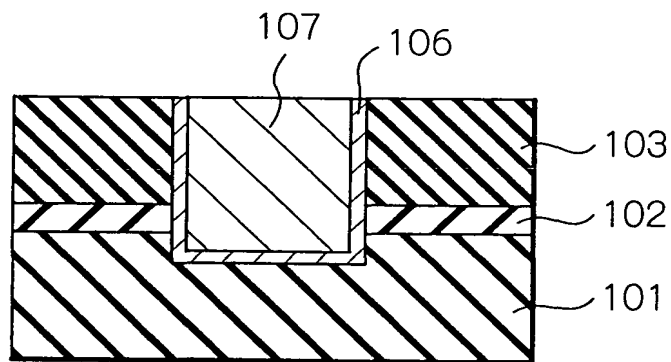


Fig. 1F PRIOR ART



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Fig. 1G PRIOR ART

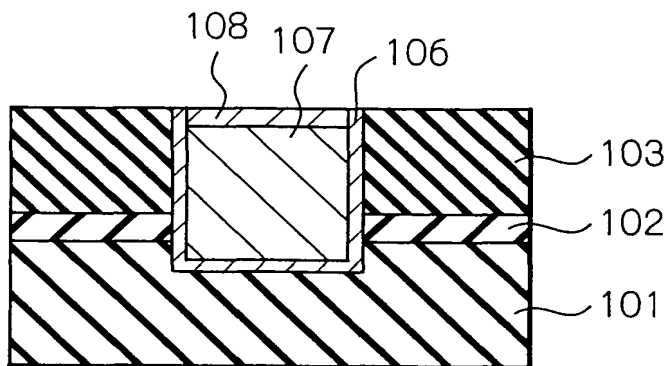


Fig. 1H PRIOR ART

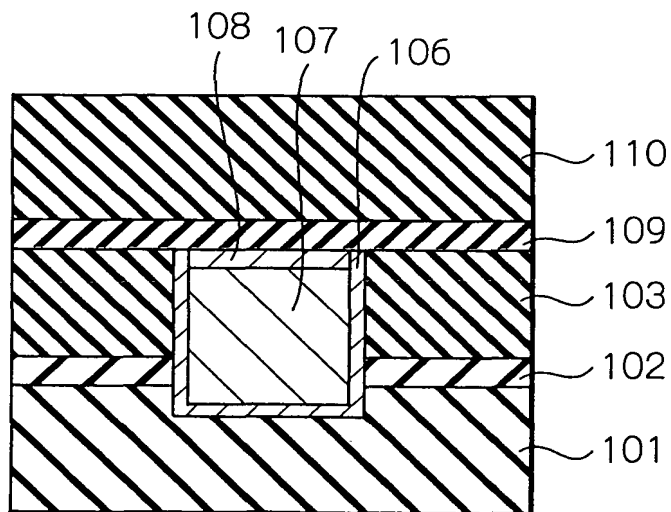


Fig. 2A PRIOR ART

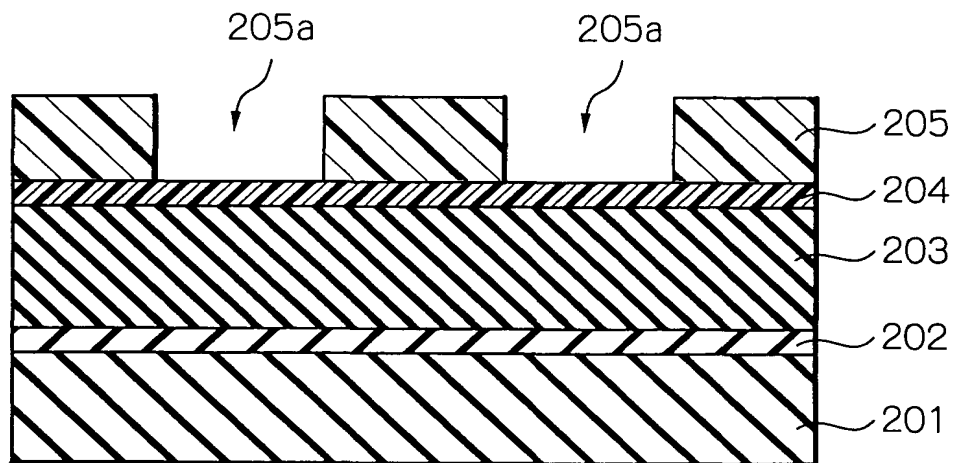


Fig. 2B PRIOR ART

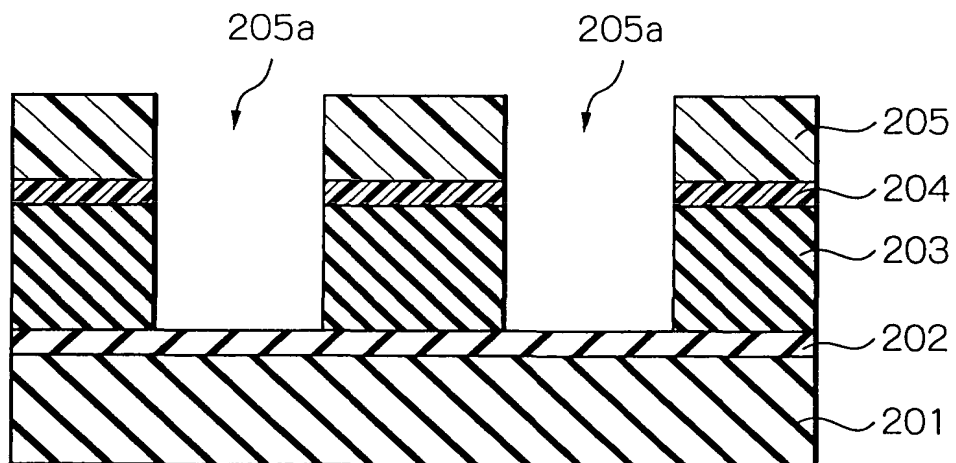


Fig. 2C PRIOR ART

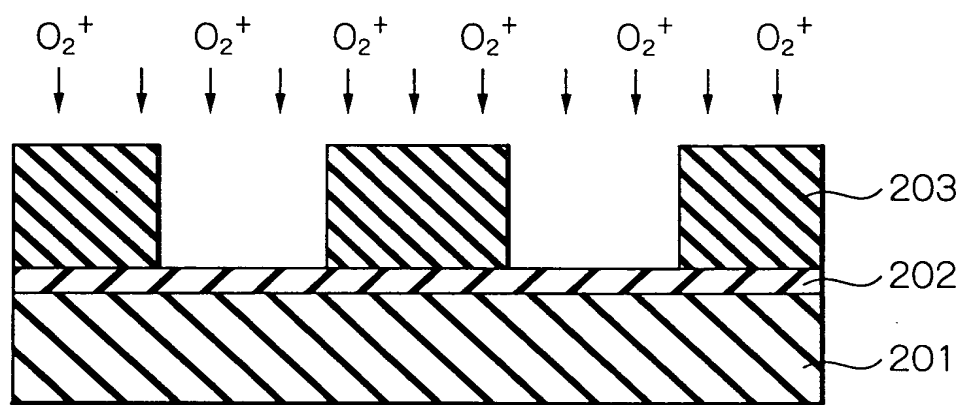


Fig. 2D PRIOR ART

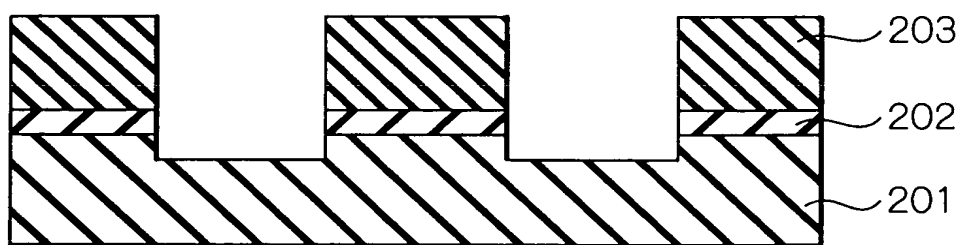


Fig. 2E PRIOR ART

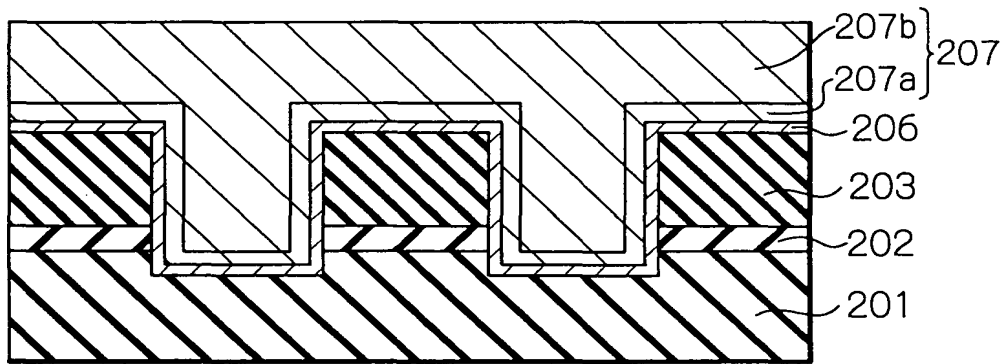
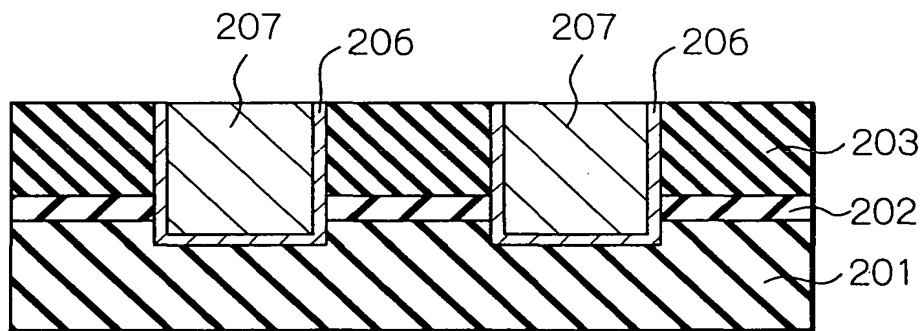
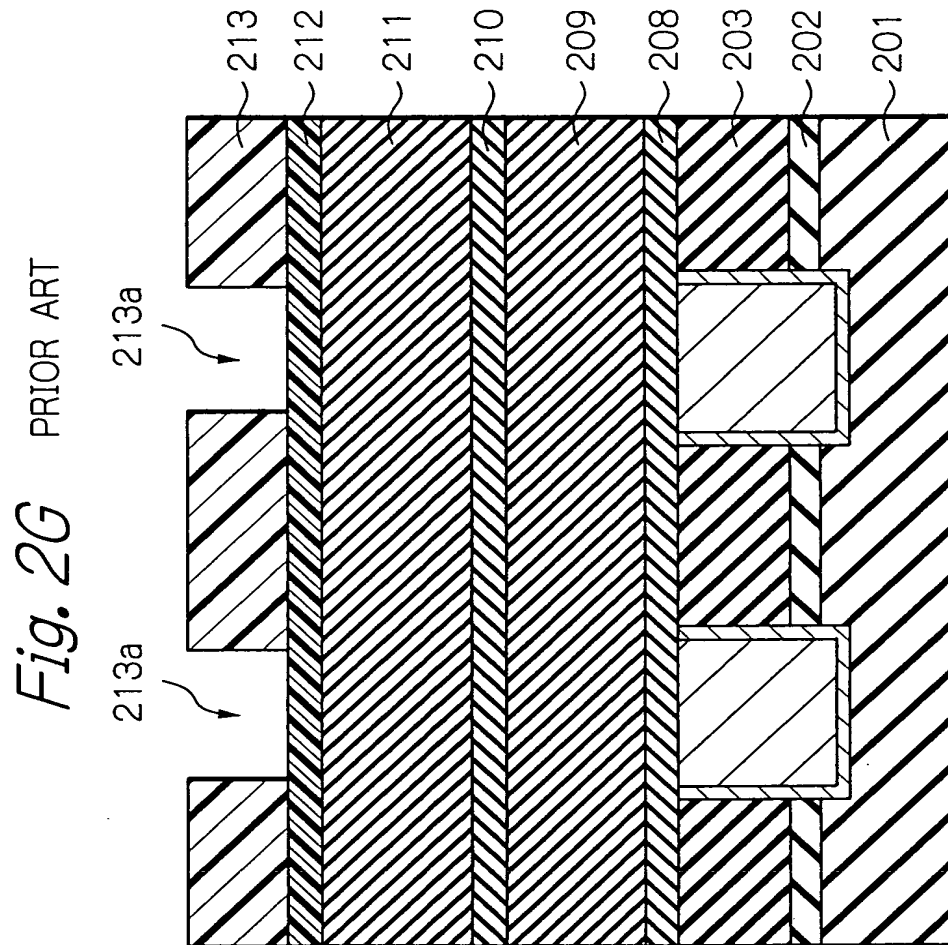


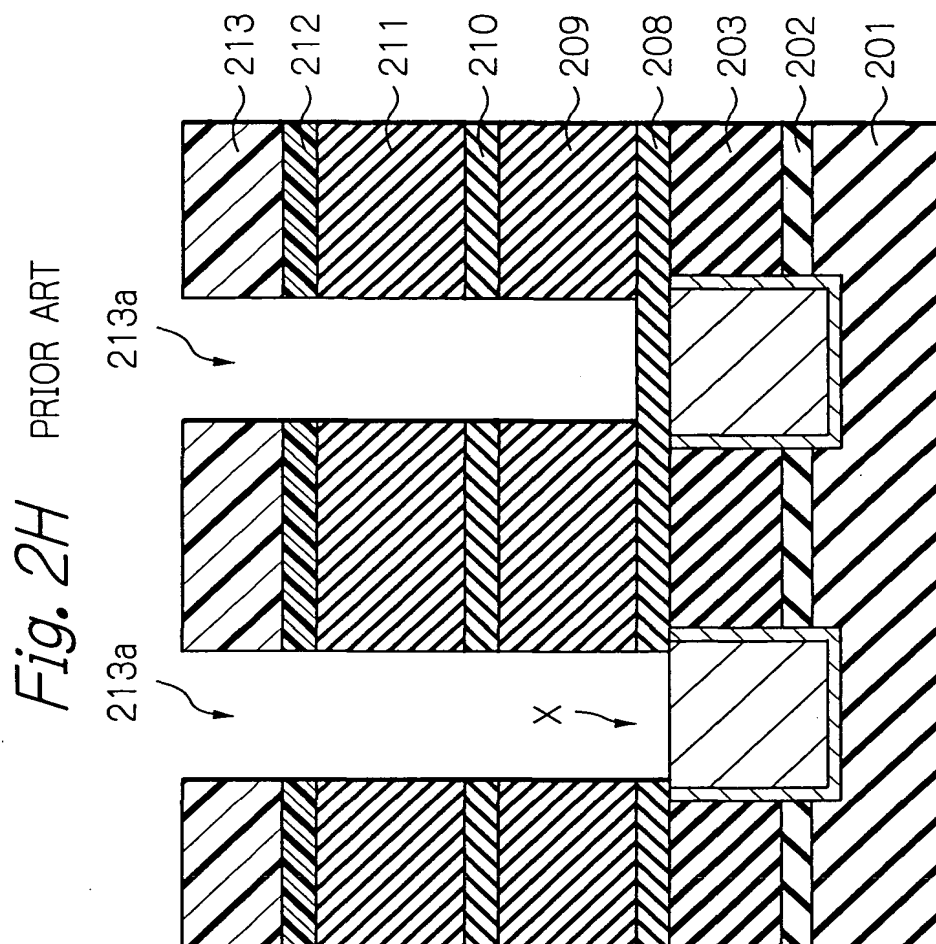
Fig. 2F PRIOR ART



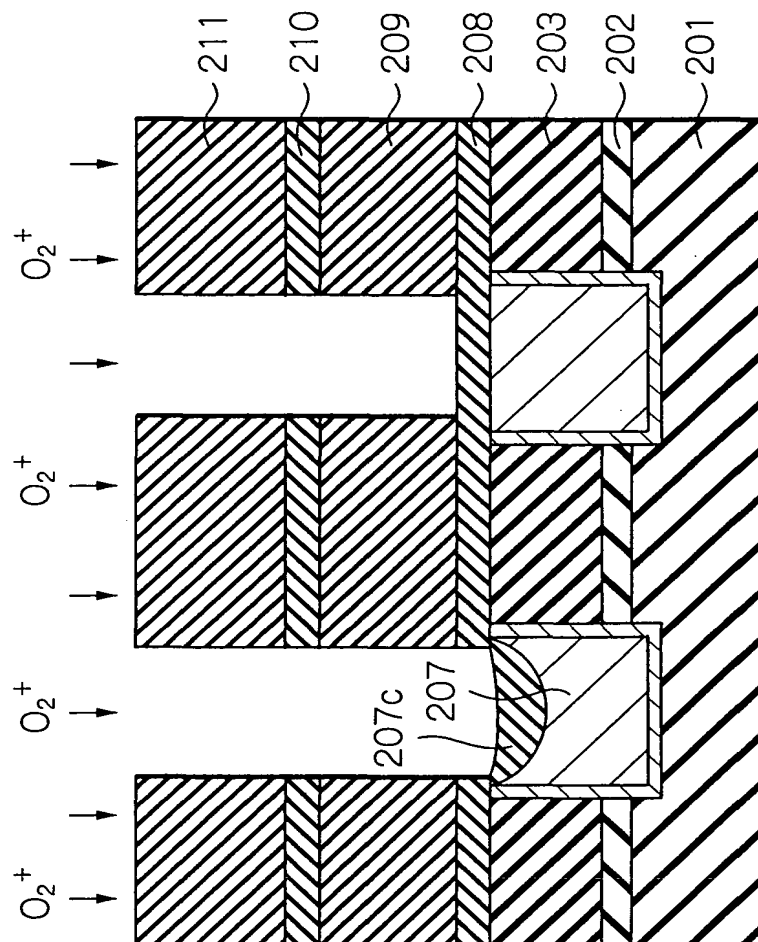
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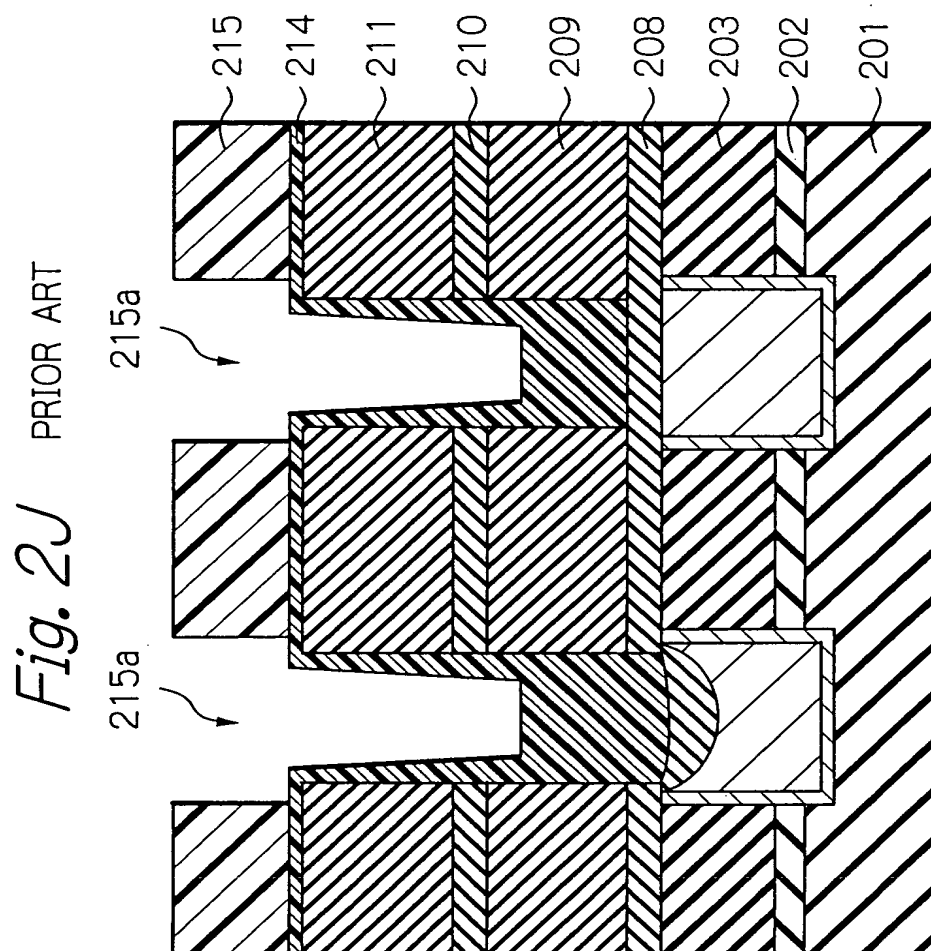
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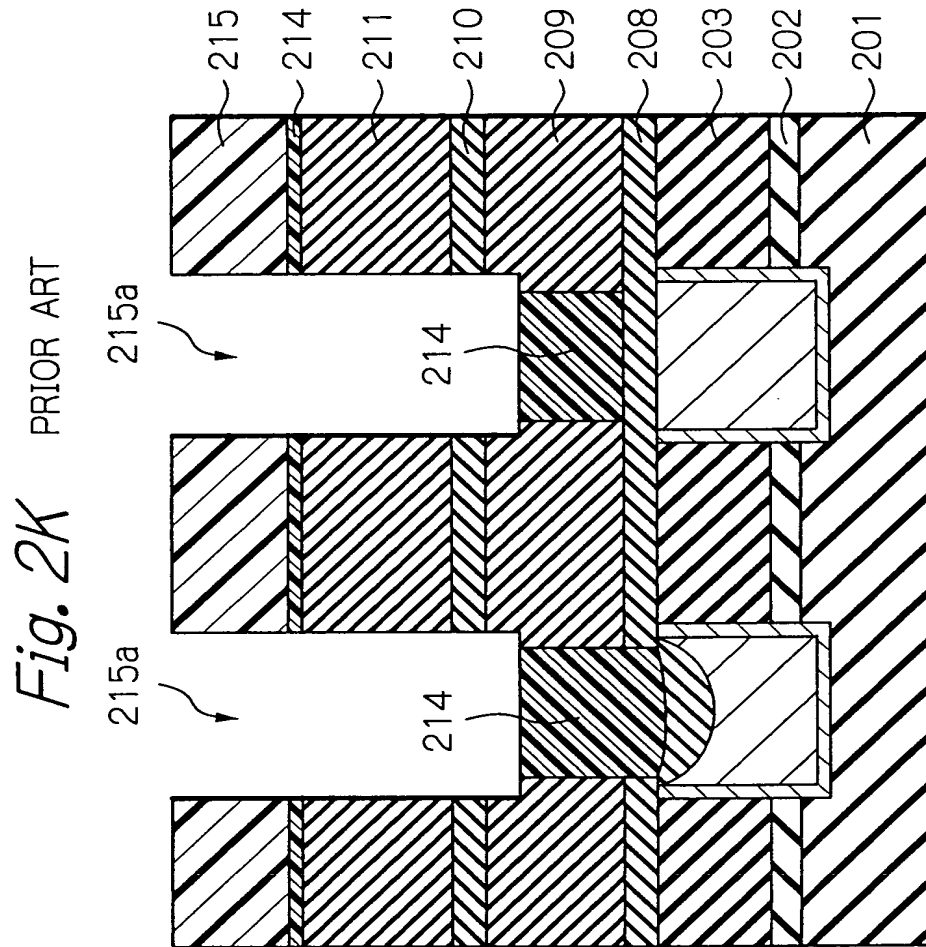
PRIOR ART



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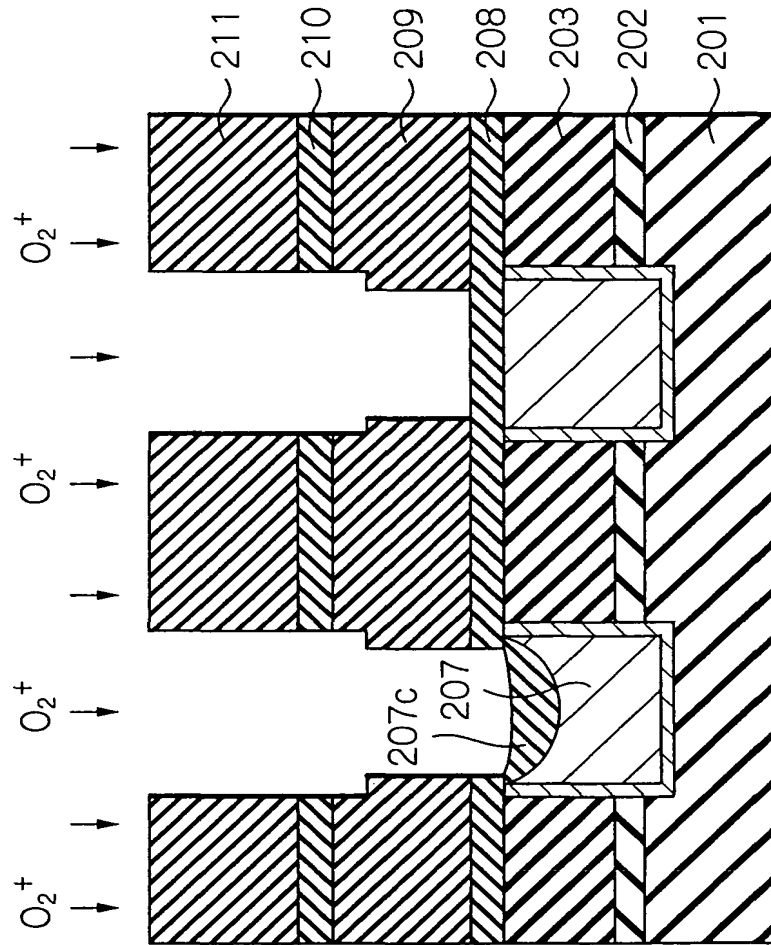


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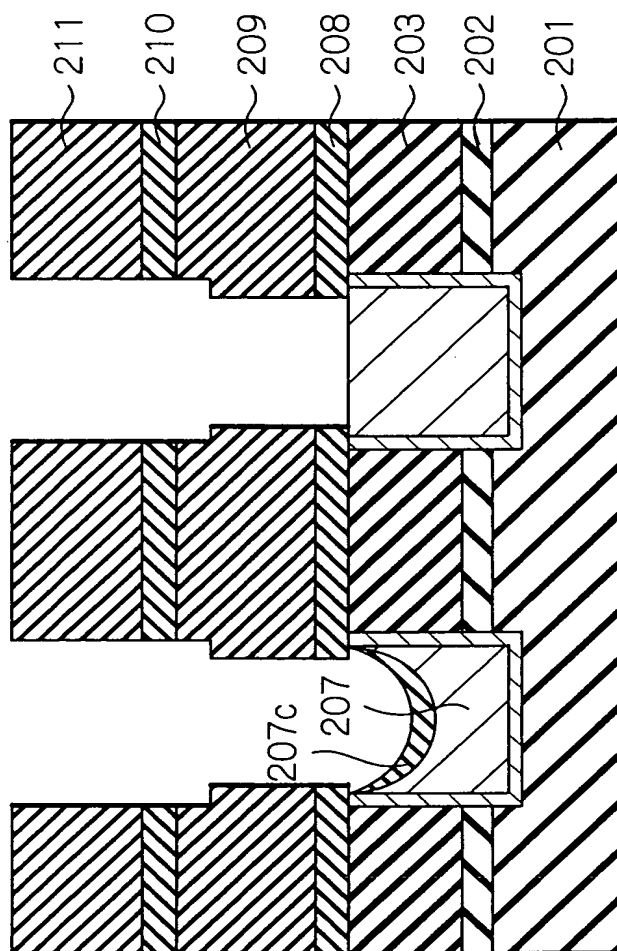
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87

Fig. 2L PRIOR ART



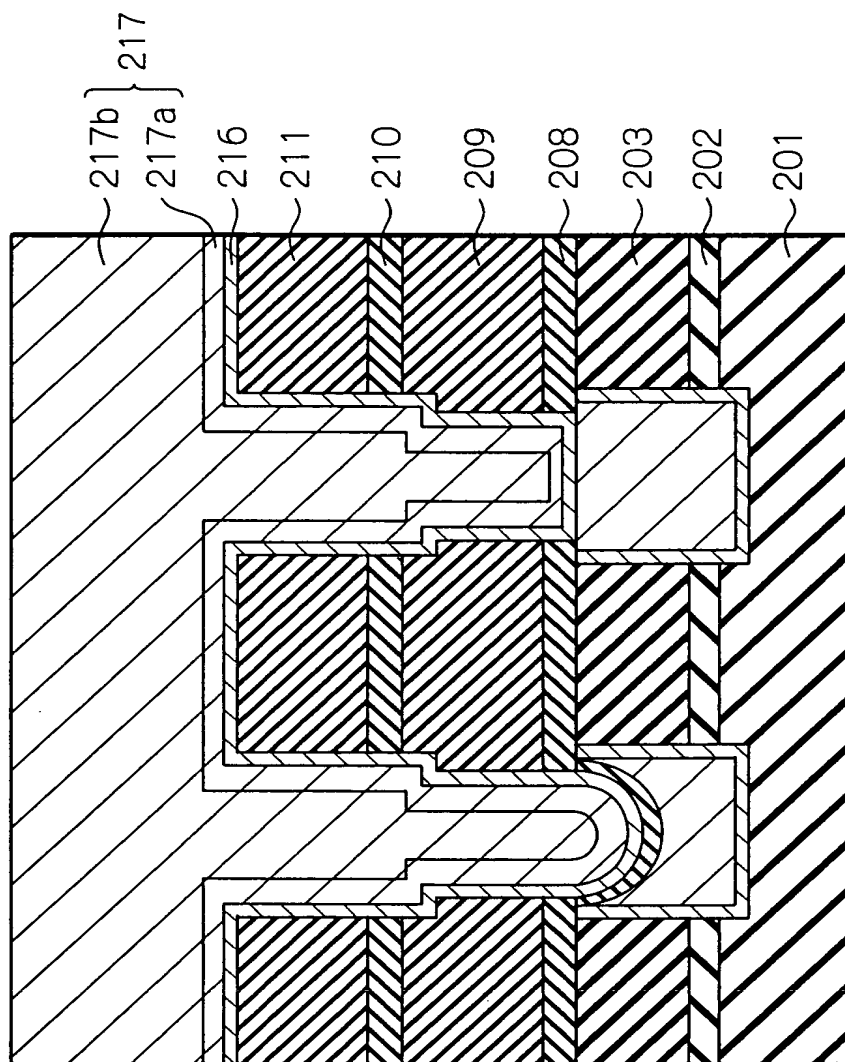
14/
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Fig. 2M PRIOR ART

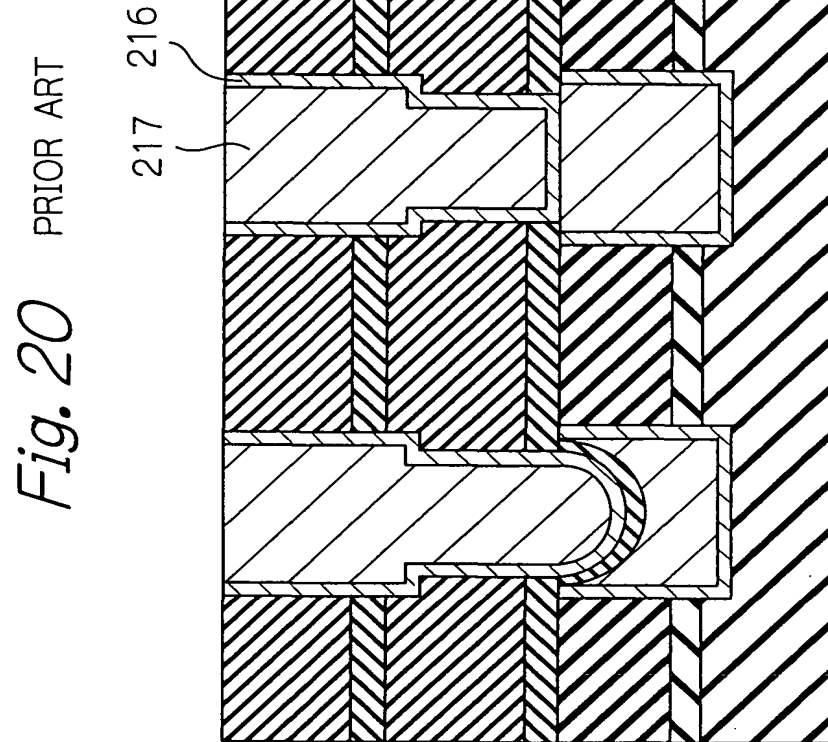


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Fig. 2N PRIOR ART

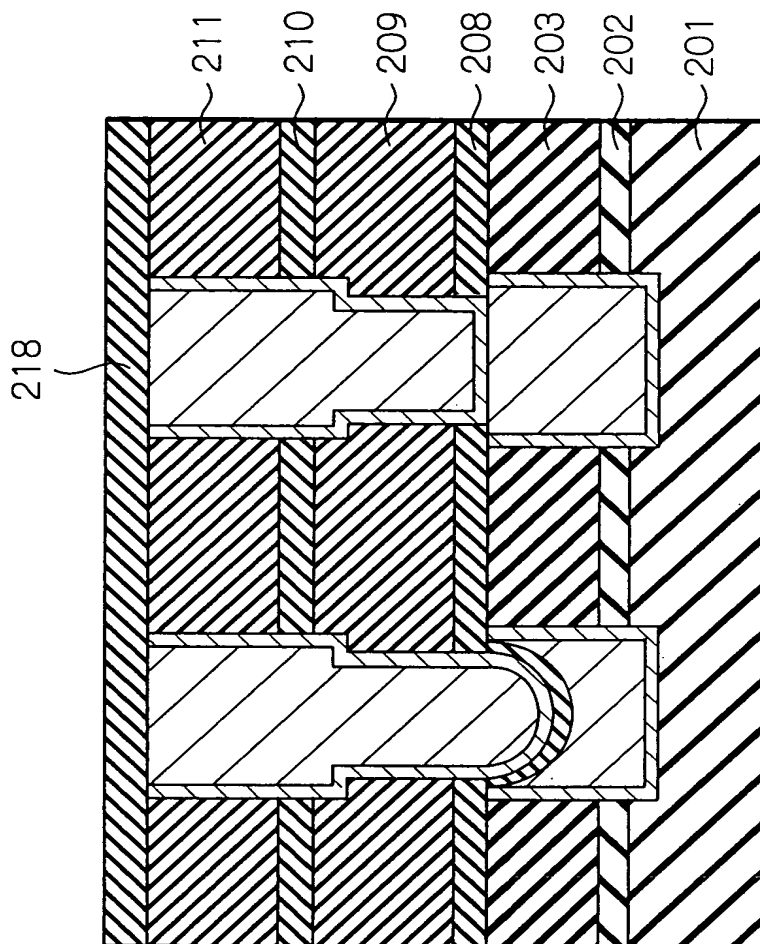


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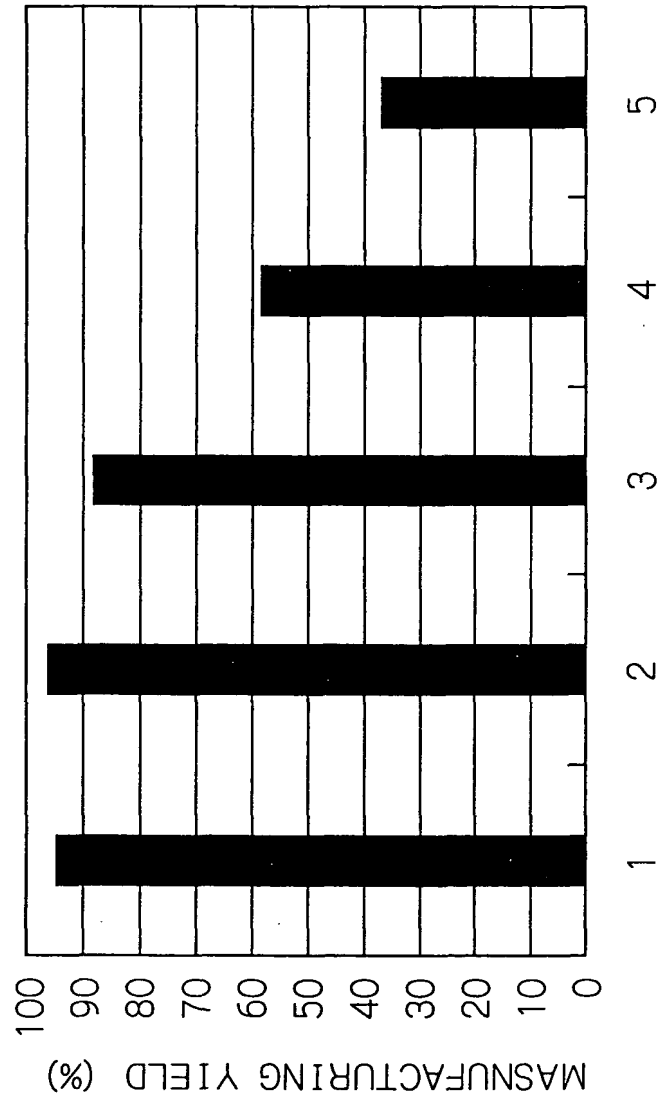
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Fig. 2P PRIOR ART



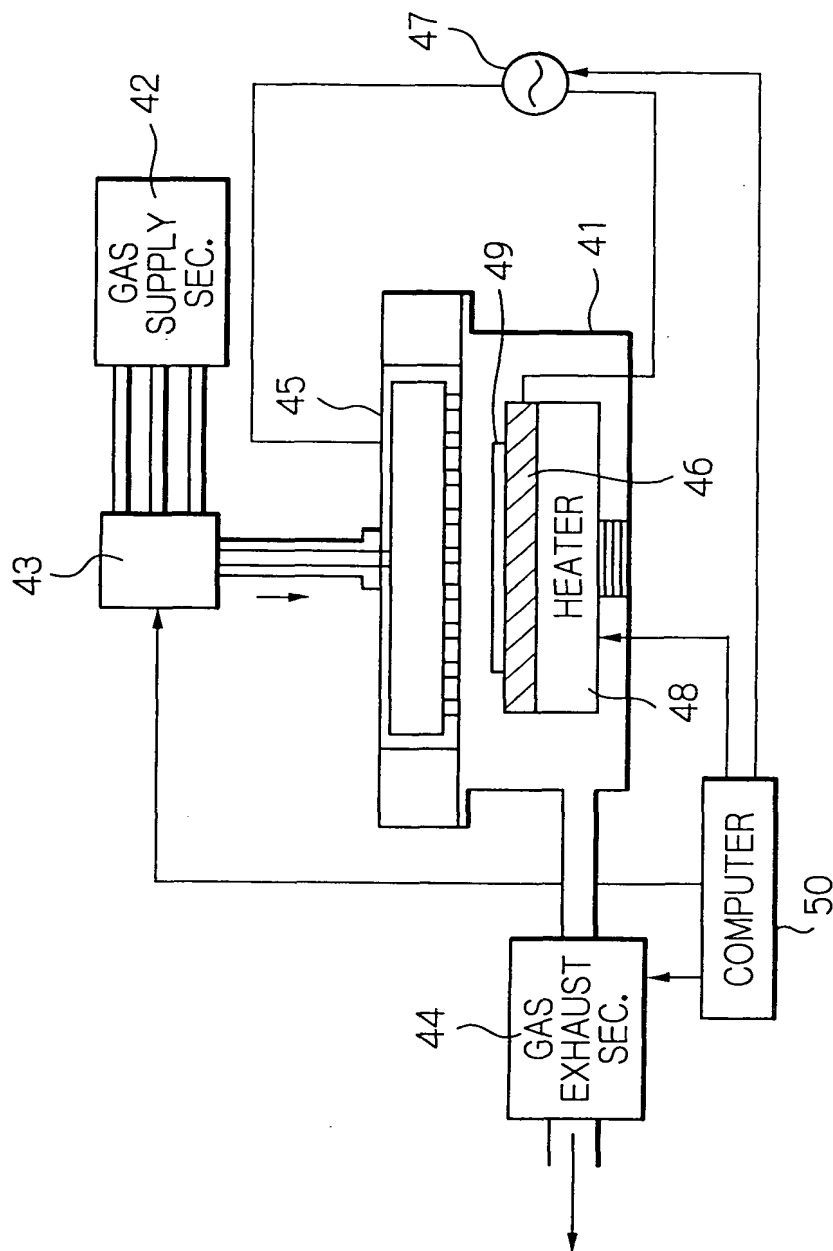
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Fig. 3 PRIOR ART



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Fig. 4 PRIOR ART



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Fig. 5A

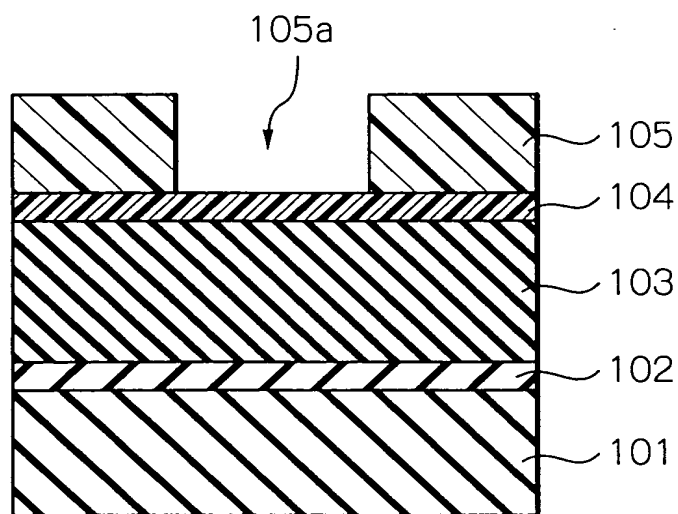
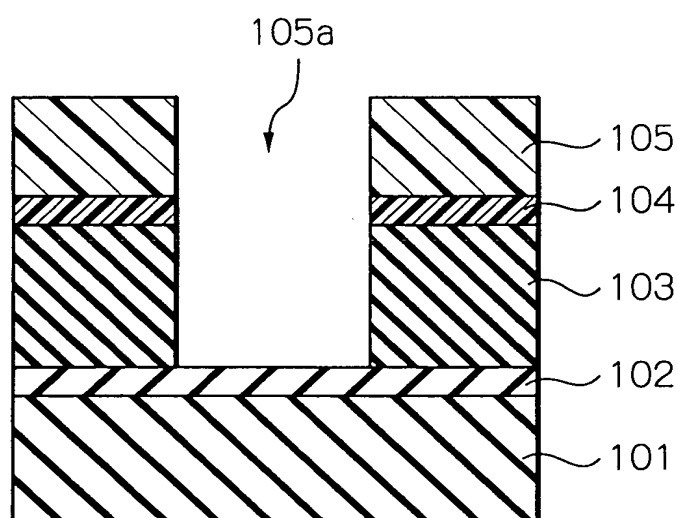


Fig. 5B



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Fig. 5C

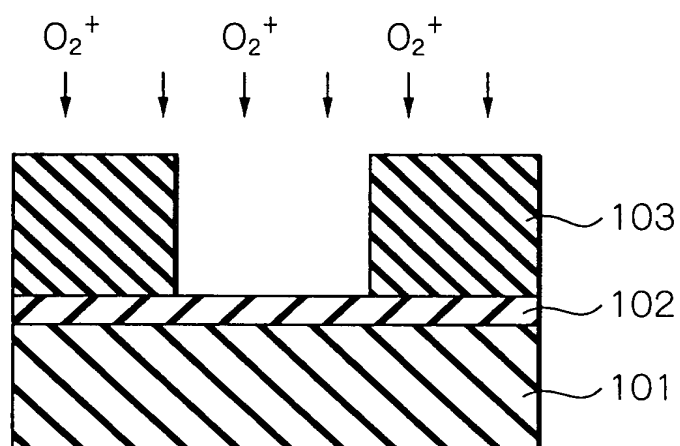
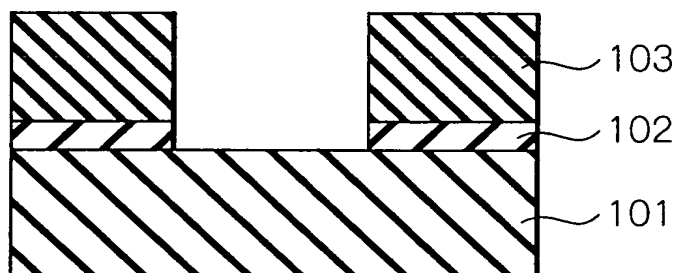


Fig. 5D



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Fig. 5E

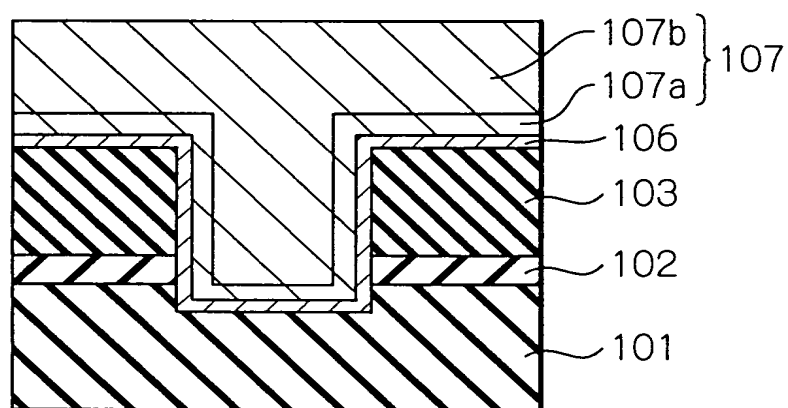
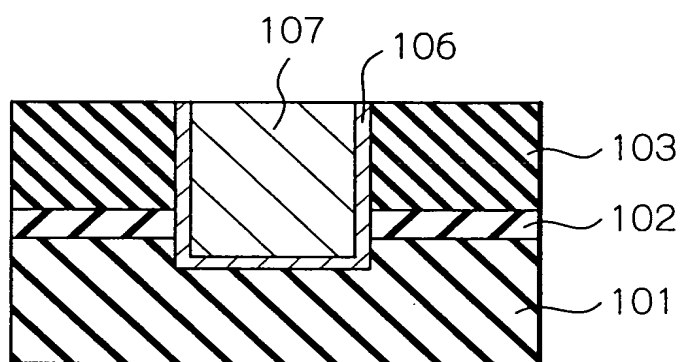


Fig. 5F



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Fig. 5G

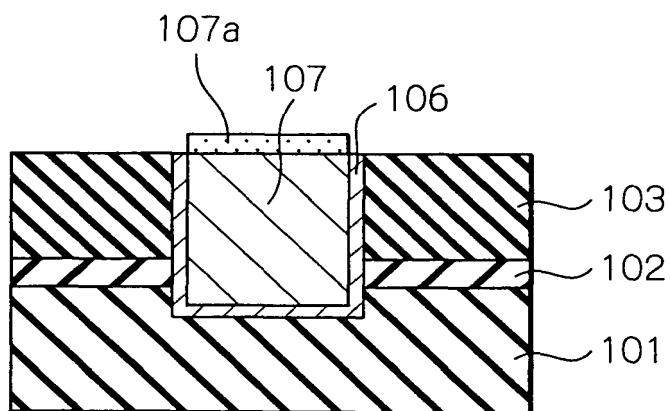
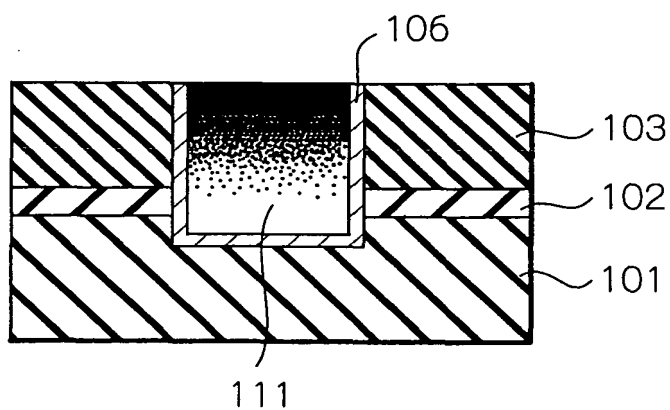


Fig. 5H



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Fig. 5I

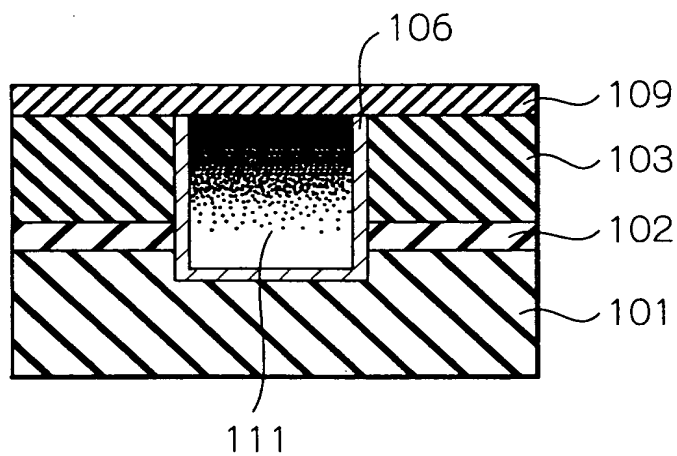
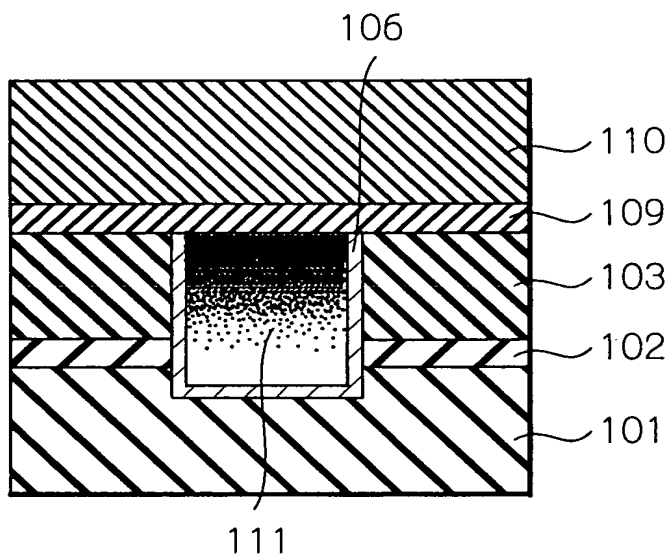
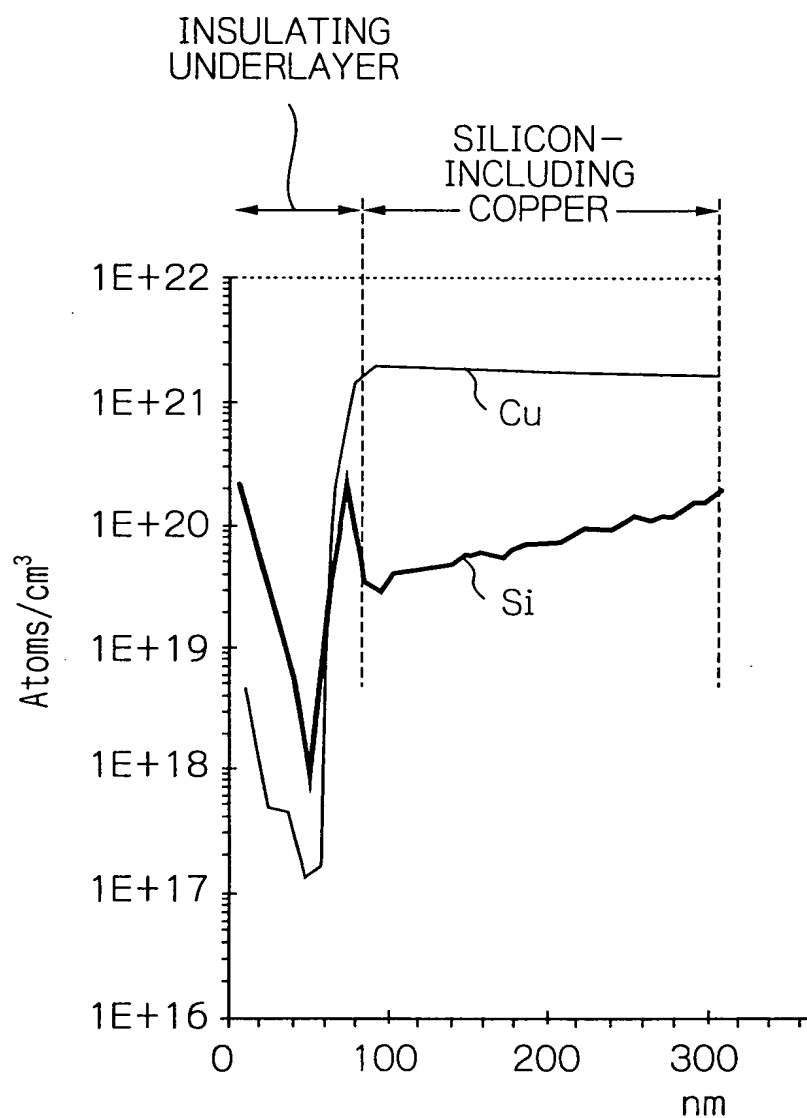


Fig. 5J



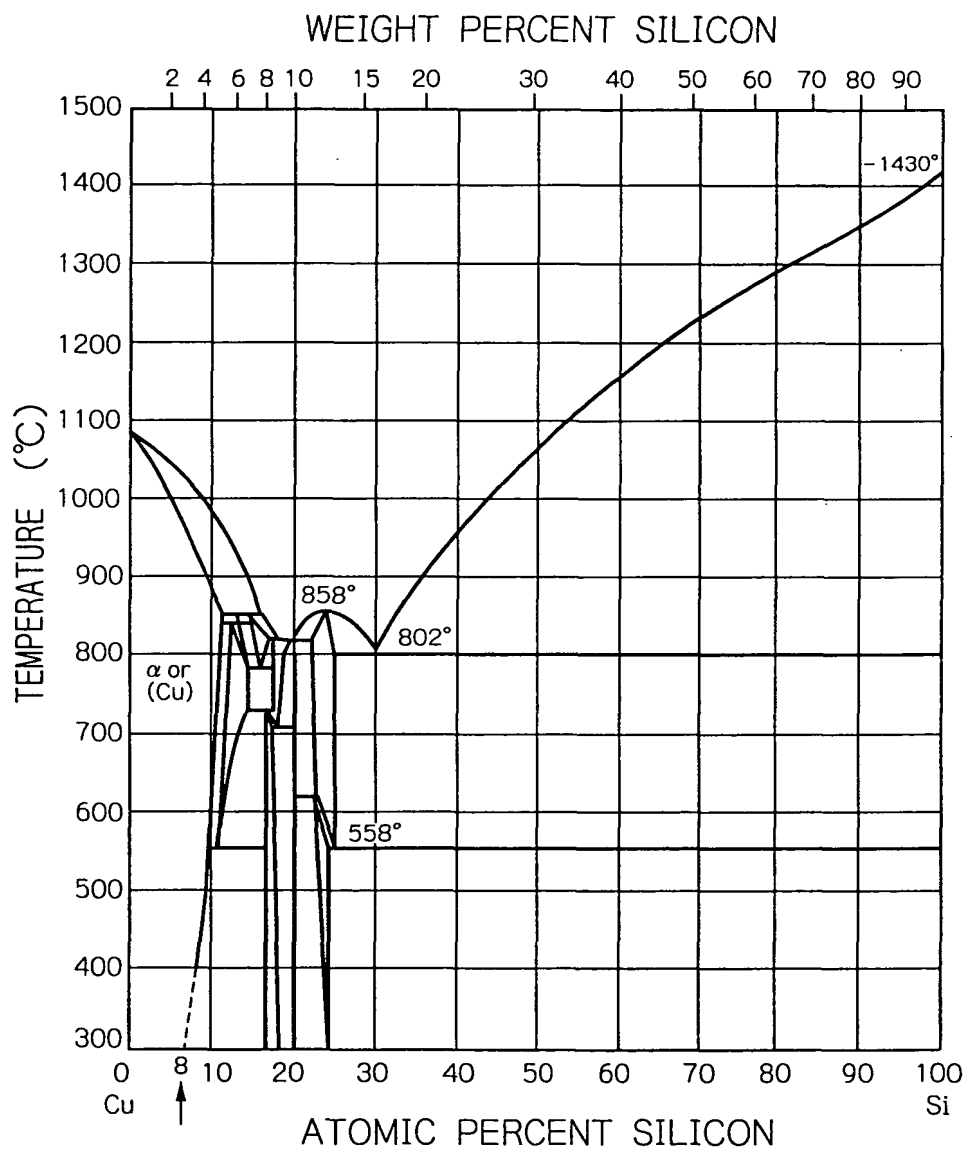
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Fig. 6



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Fig. 7



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Fig. 8A

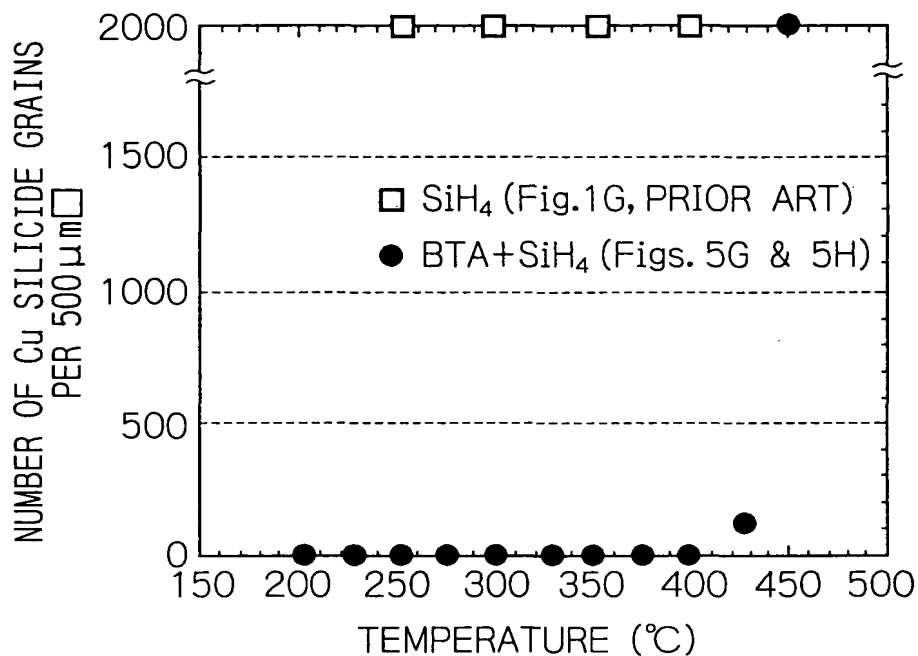
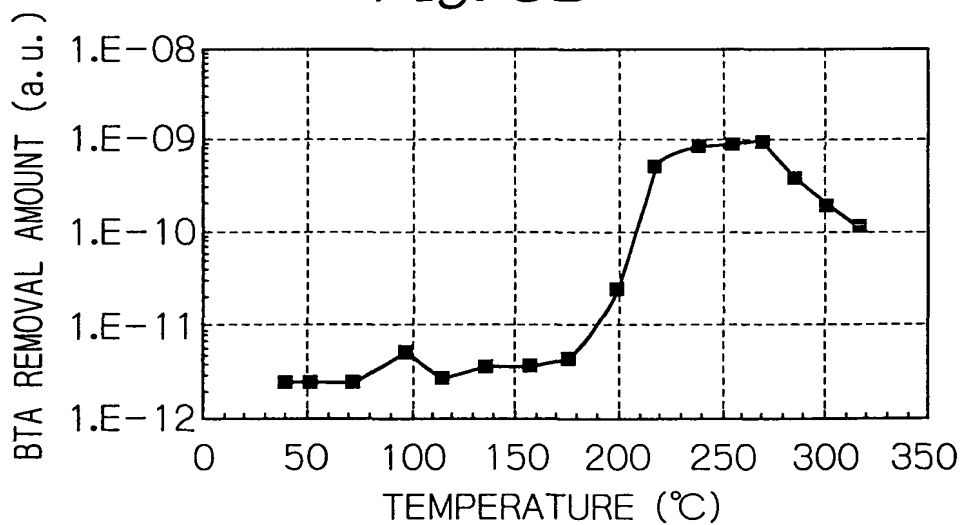


Fig. 8B



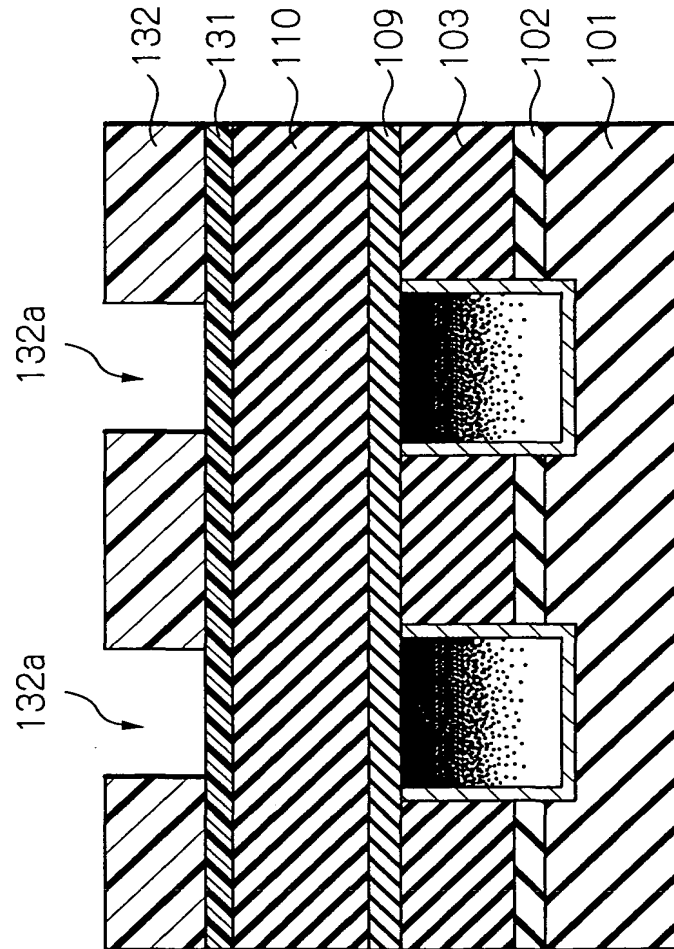
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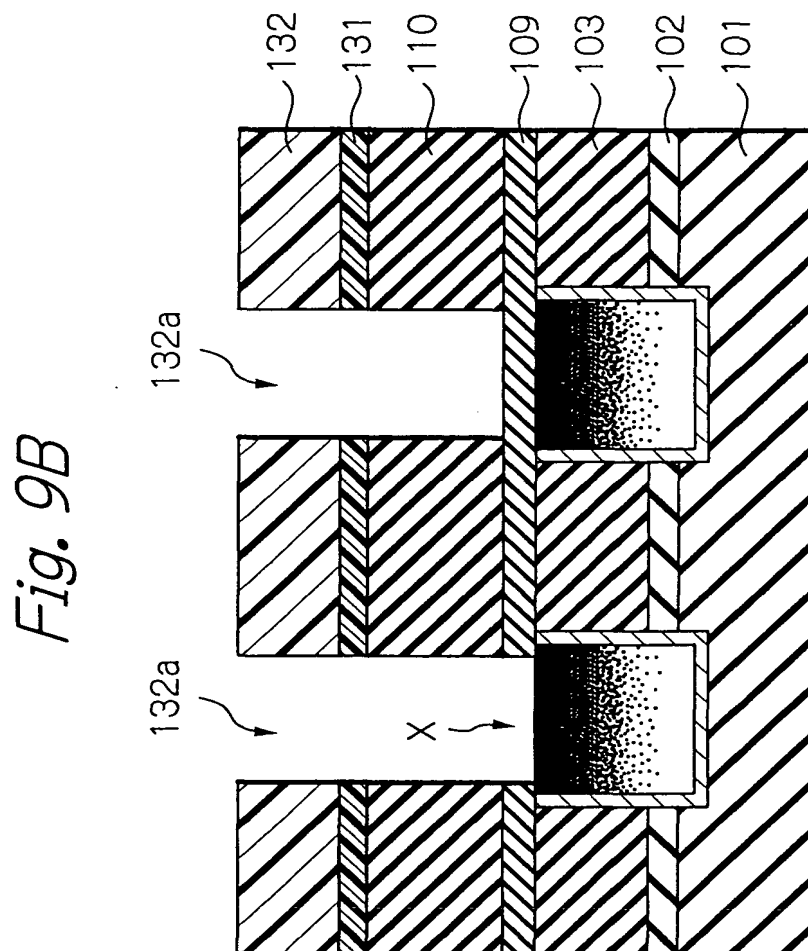
Fig. 8C

TEMPERATURE (°C)	200	225	250	300	350	400
LAYER 111	ABSENCE OF Si	ABSENCE OF Si	PRESENCE OF Si	PRESENCE OF Si	PRESENCE OF Si	PRESENCE OF Si

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87

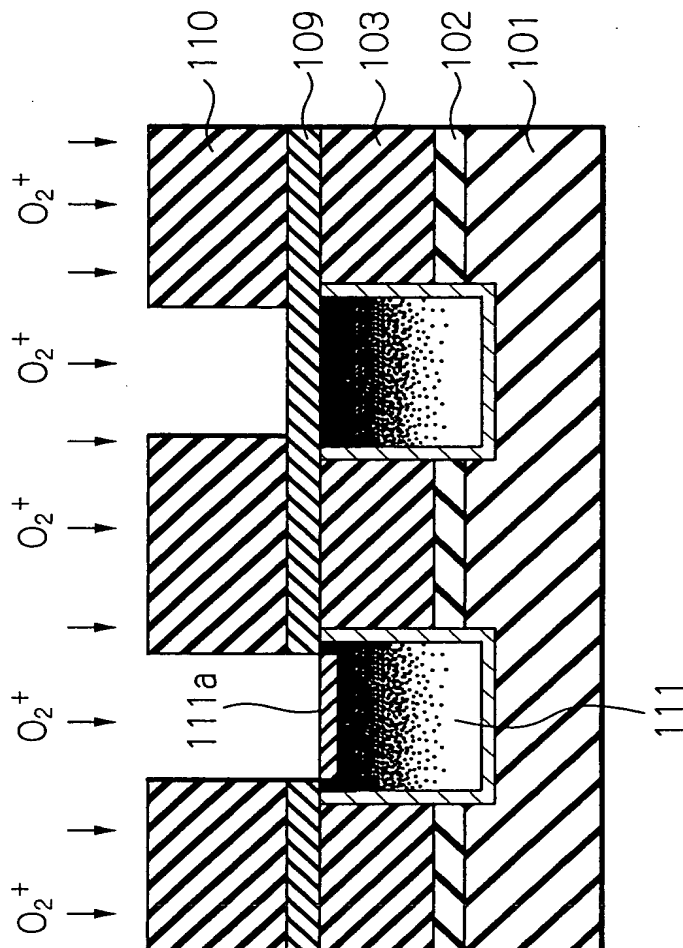
Fig. 9A





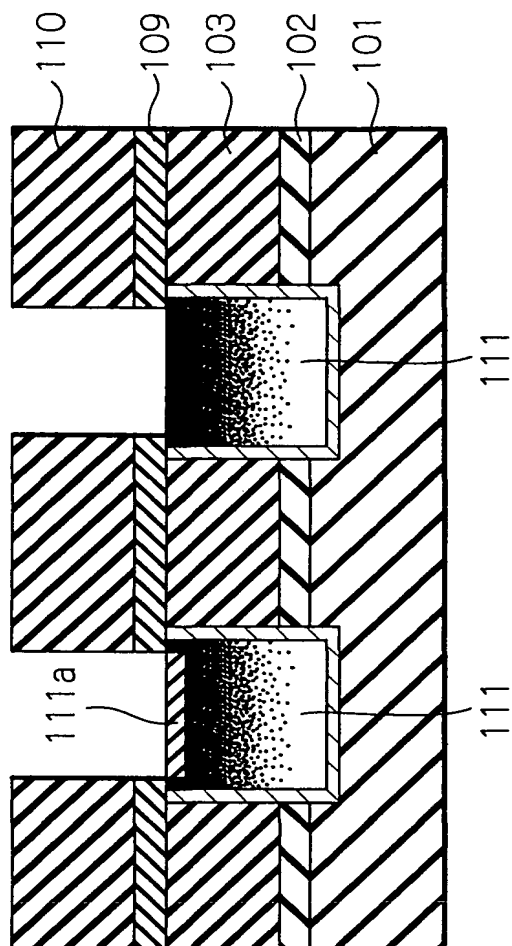
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Fig. 9C



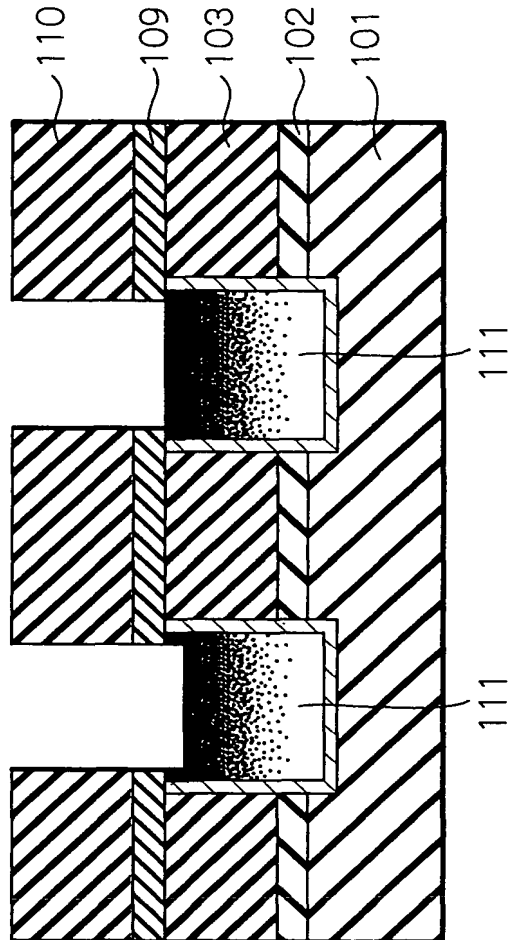
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87

Fig. 9D



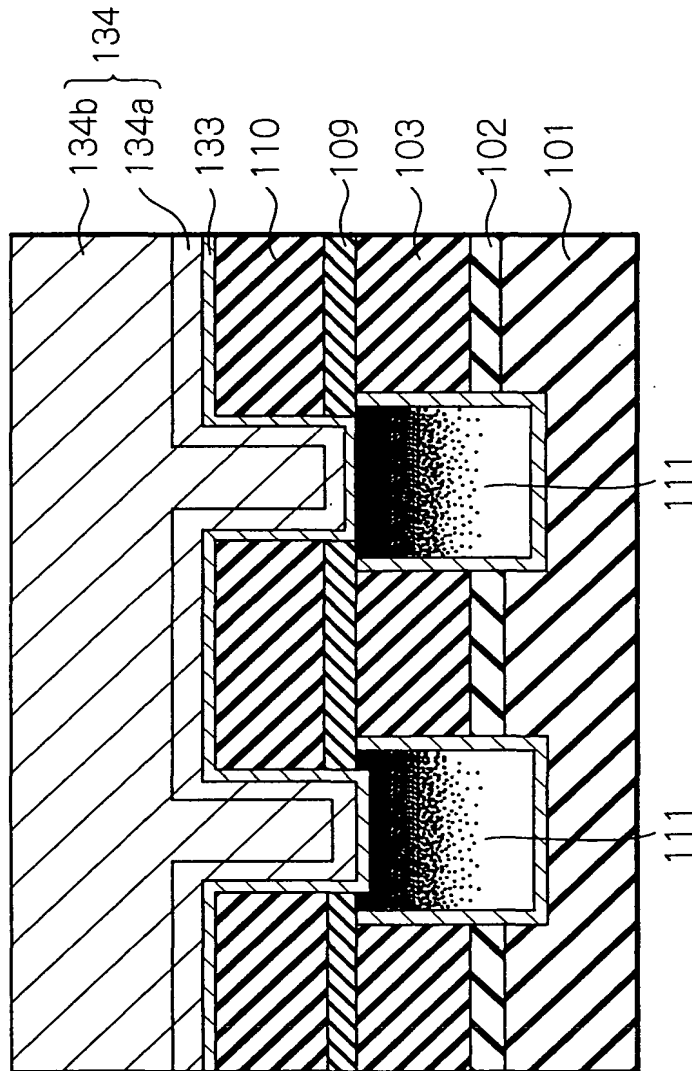
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Fig. 9E



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Fig. 9F

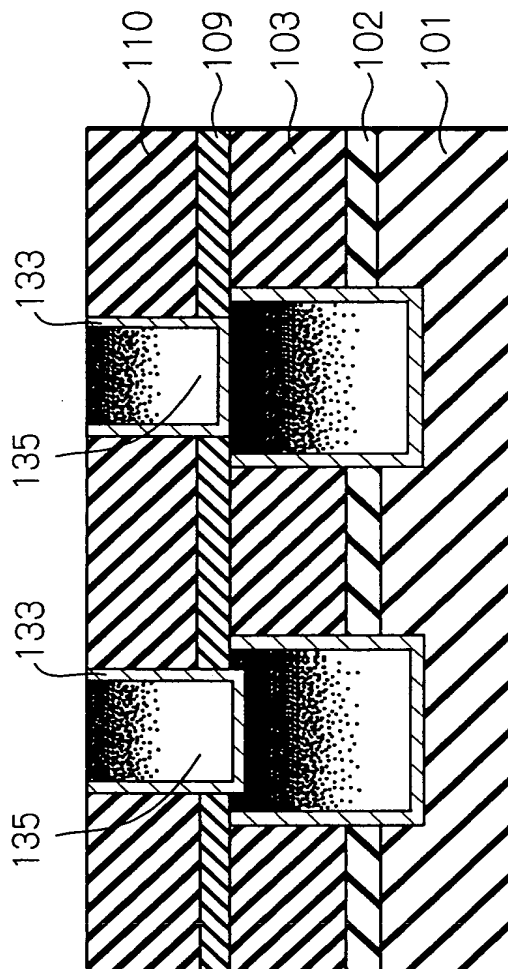


This cross-sectional view shows a semiconductor device with two active regions. The substrate is labeled 101. A layer 102 is formed on the substrate. Two regions, 103, are formed on layer 102. Each region 103 contains a patterned layer 109. A layer 110 is formed on top of layer 102. Two regions, 133, are formed on layer 110. Each region 133 contains a patterned layer 134. The regions 103 and 133 are separated by a region 133.

This cross-sectional view shows a substrate 101 with a series of V-shaped grooves 102. A layer 103 is deposited on the substrate. Two gate structures 110 are formed on the surface of layer 103. Each gate structure 110 consists of a gate dielectric layer 109 and a gate electrode 134. The gate electrode 134 is divided into two parts: a top portion 133 and a bottom portion 134a. The bottom portion 134a is positioned directly above the V-shaped grooves 102.

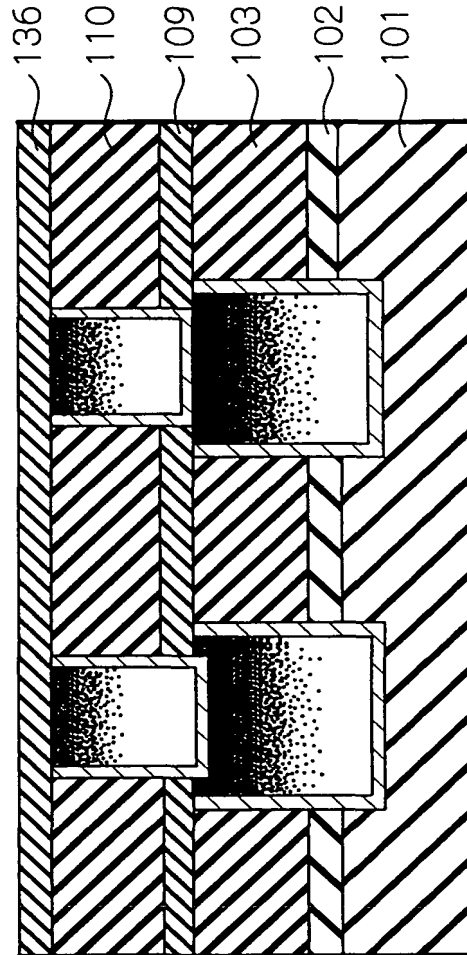
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Fig. 9I



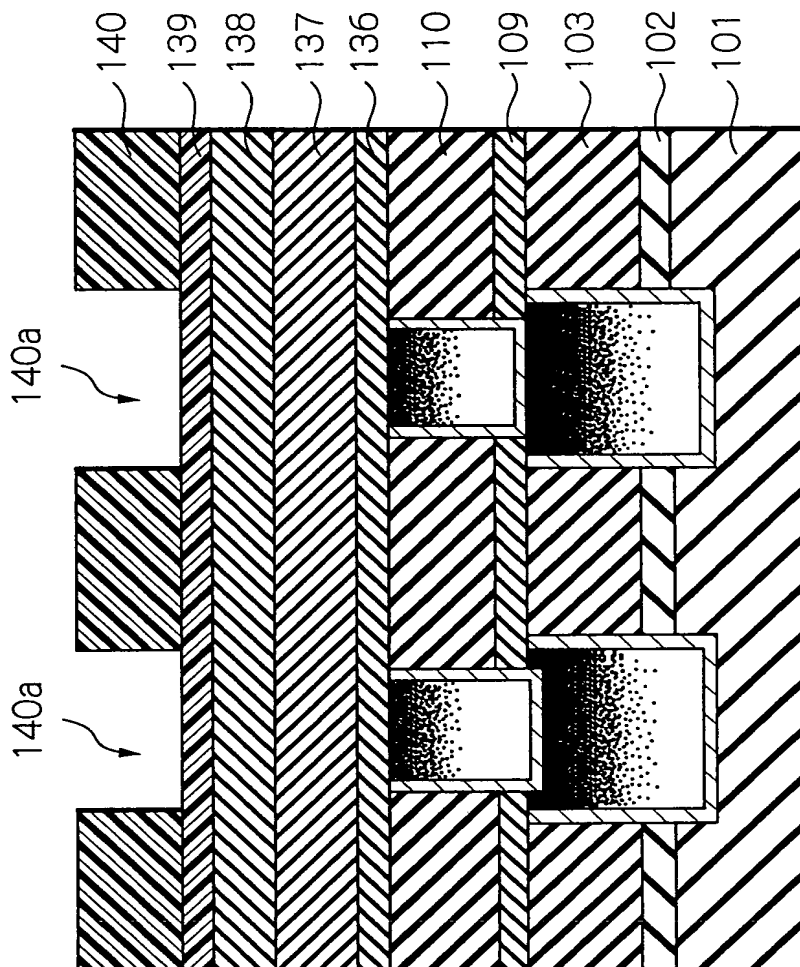
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Fig. 9J



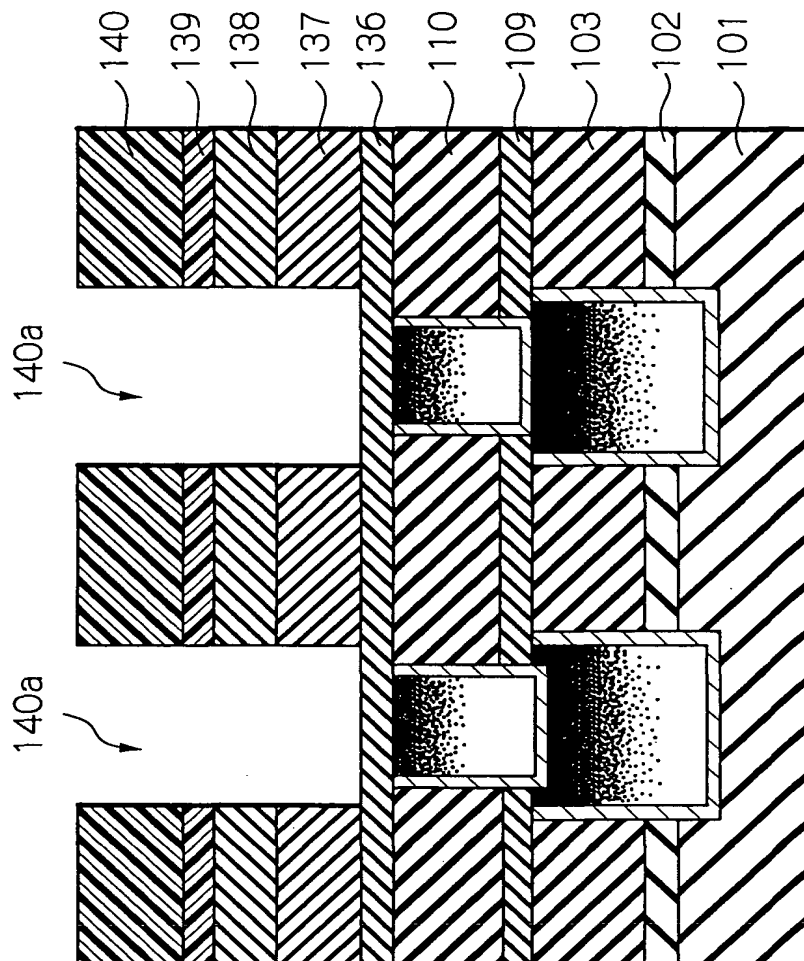
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87

Fig. 9K



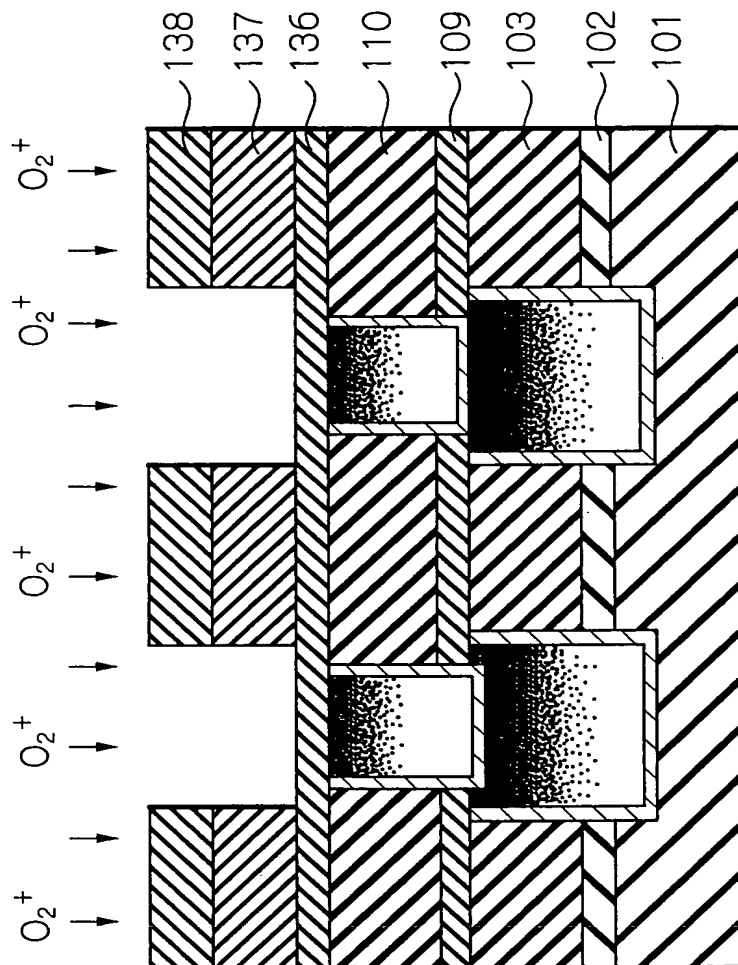
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Fig. 9L



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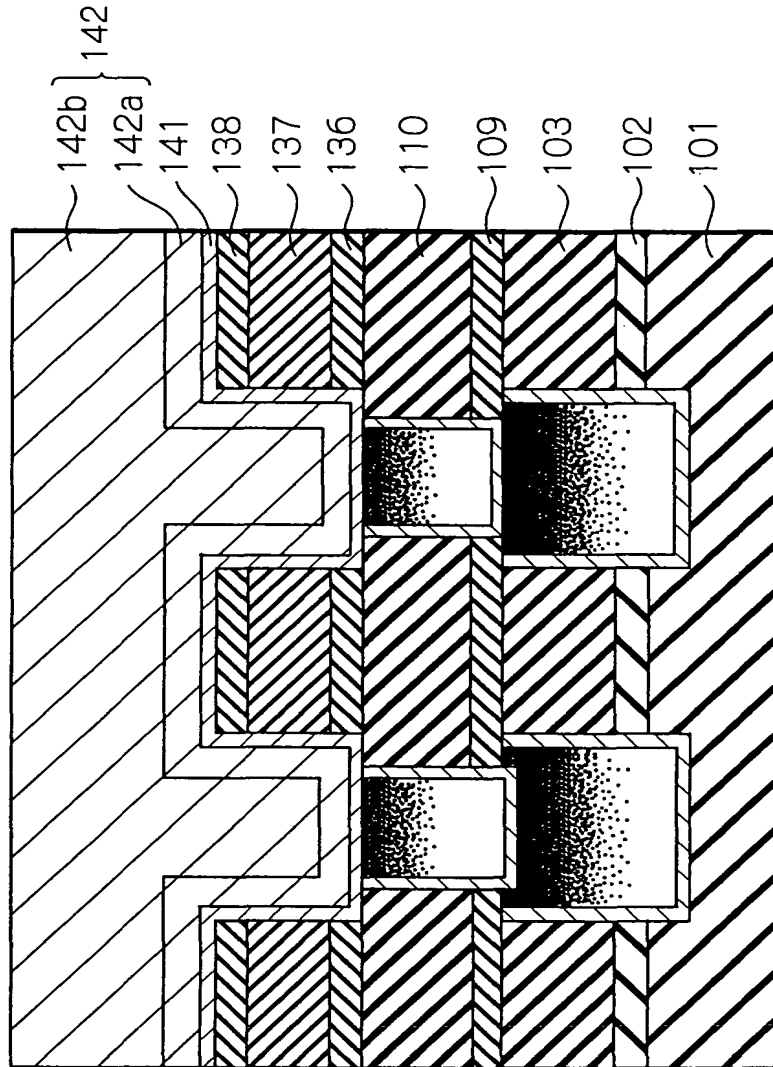
Fig. 9M



[illegible]

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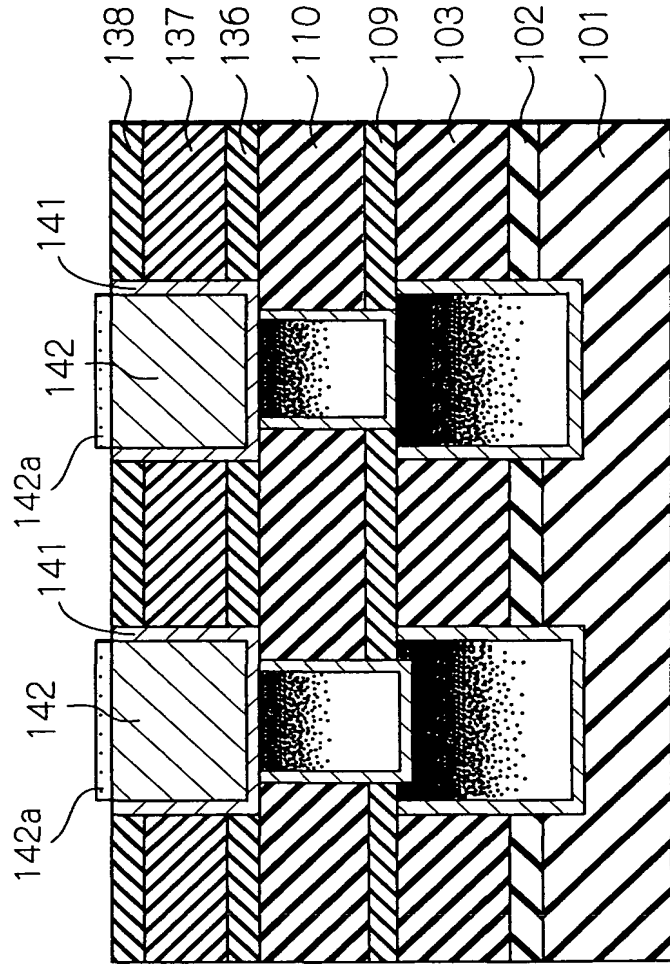
Fig. 90



This diagram shows a cross-sectional view of a semiconductor device. A central channel region (101) is defined by a central gate (102) and two side gates (103). The channel region (101) is filled with a material having a diagonal hatching pattern. The side gates (103) are filled with a stippled pattern. The central gate (102) is filled with a diagonal hatching pattern. The device is surrounded by a substrate (109) and a top layer (110). The side gates (103) are connected to a common terminal (136) via a contact (137) and a wire (138). The central gate (102) is connected to a common terminal (141) via a contact (142).

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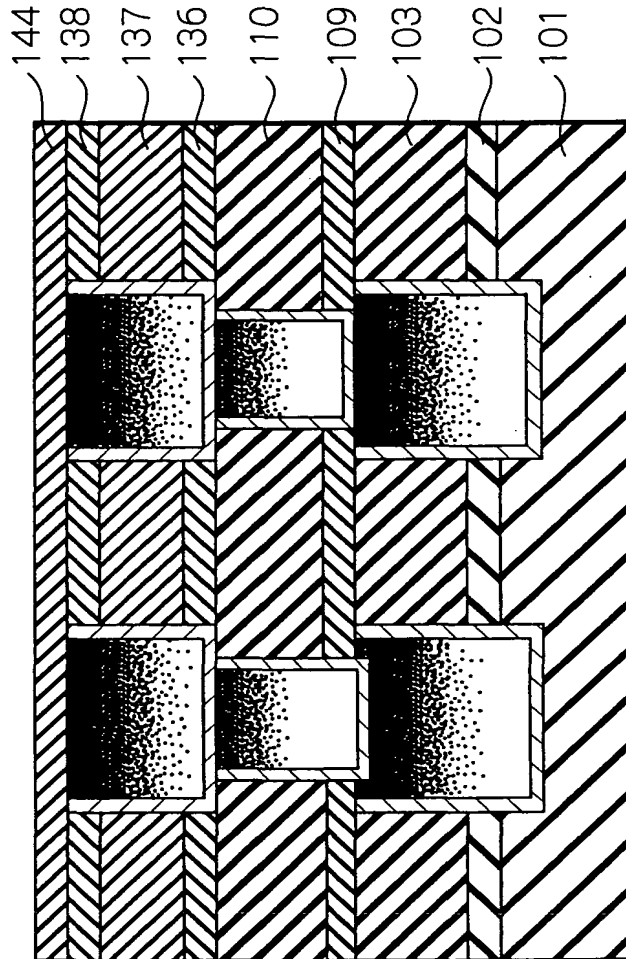
Fig. 9Q



[illegible]

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Fig. 9S



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Fig. 10A

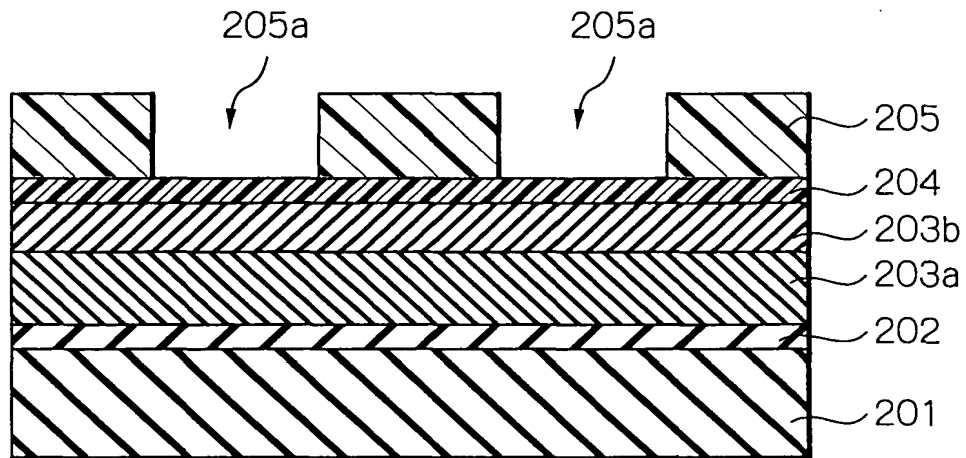
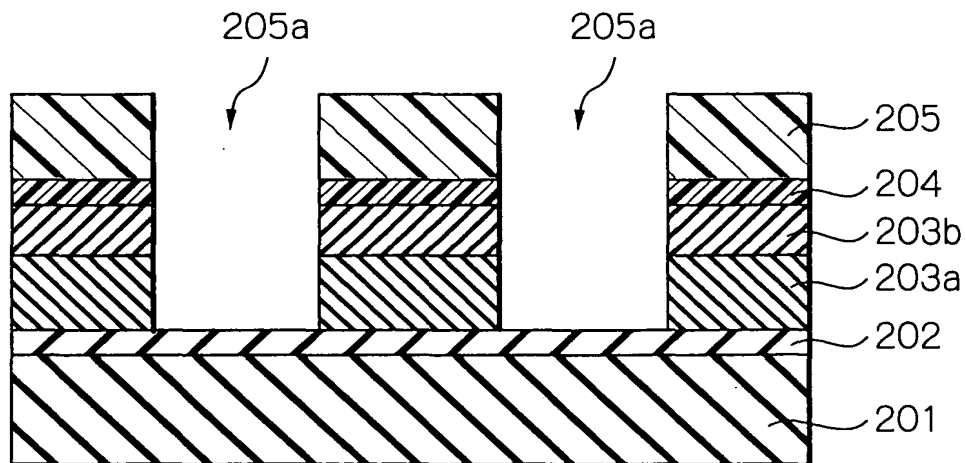


Fig. 10B



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Fig. 10C

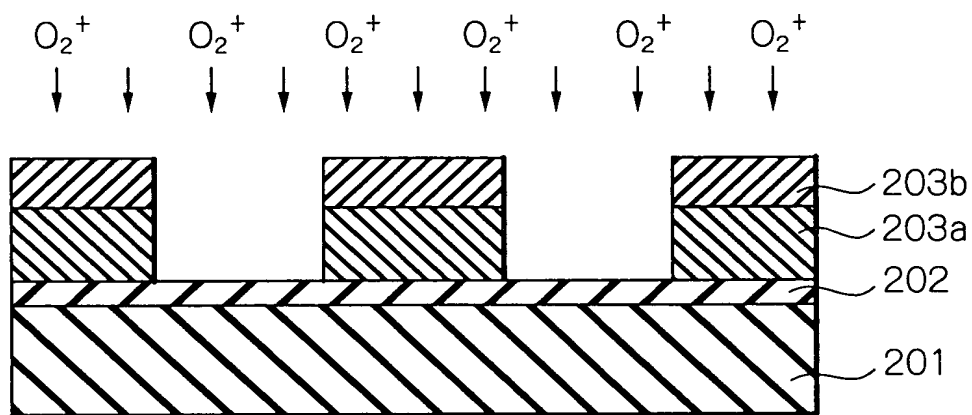
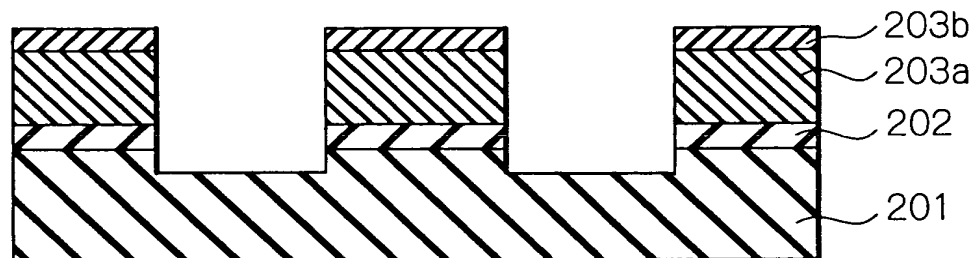


Fig. 10D



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Fig. 10E

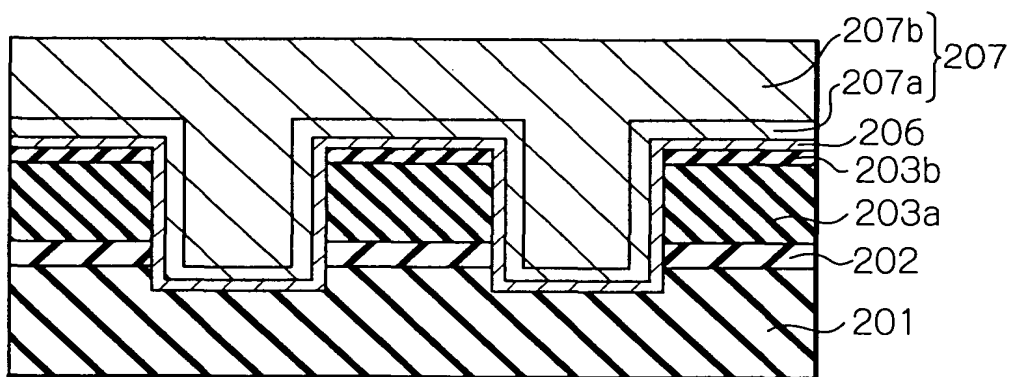
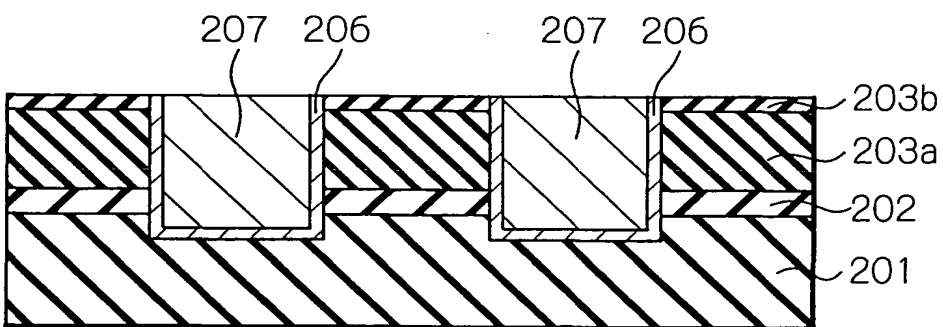


Fig. 10F



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Fig. 10G

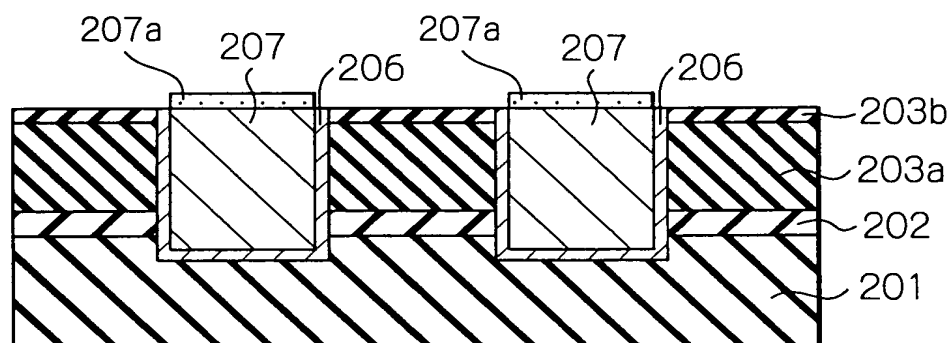
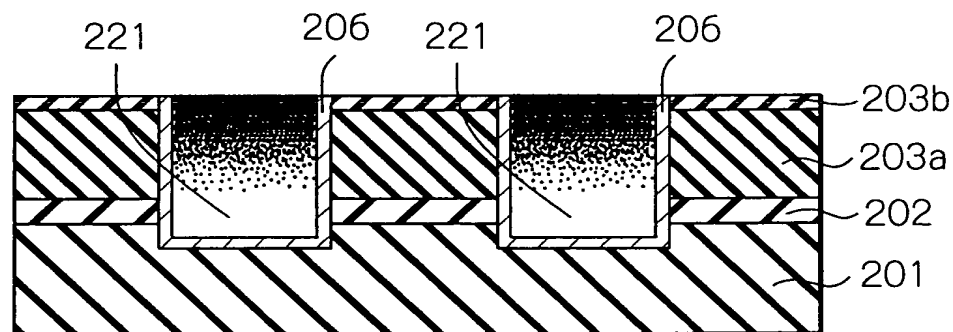


Fig. 10H



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Fig. 10I

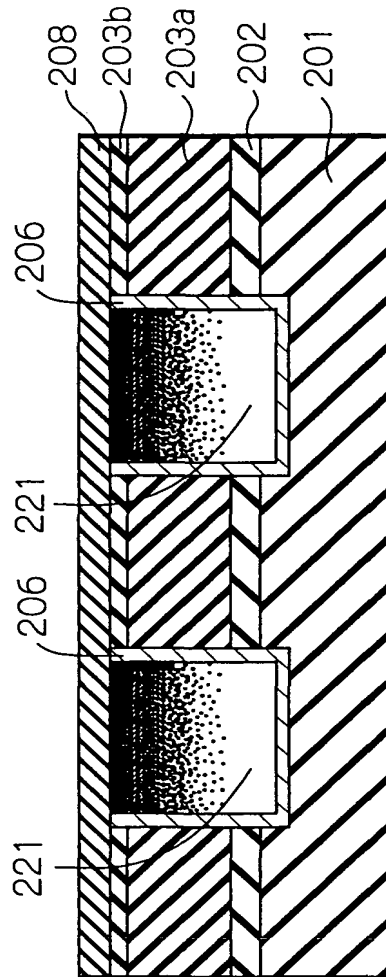
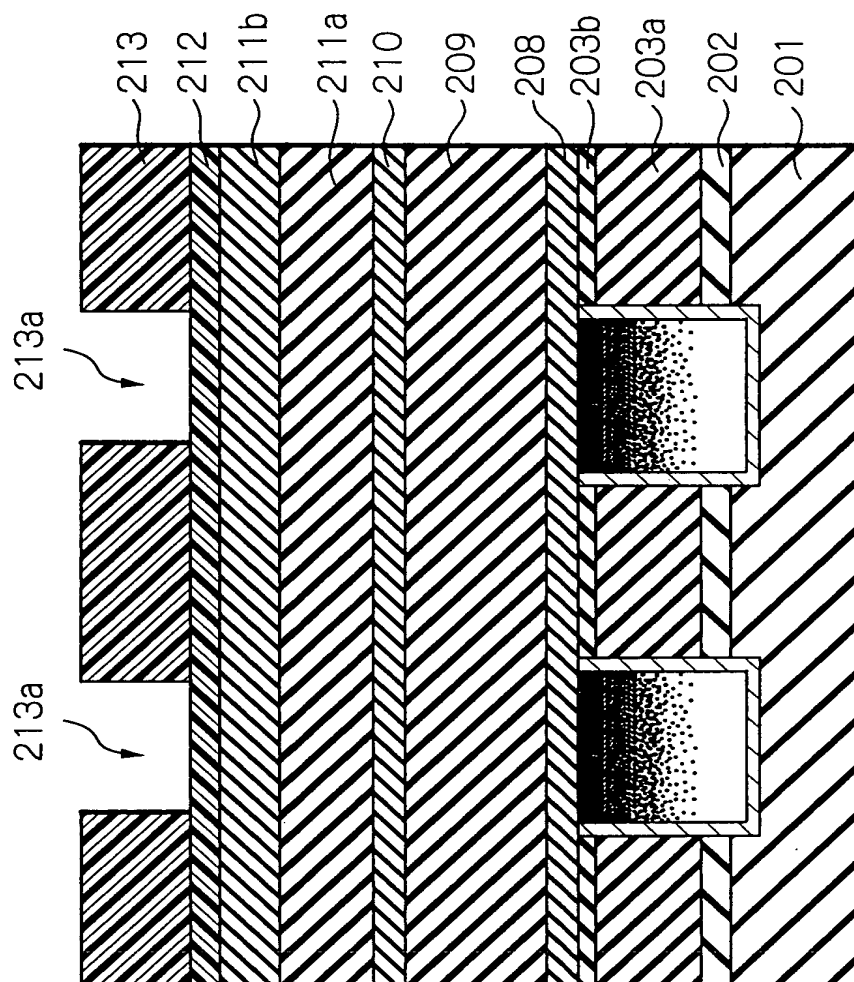


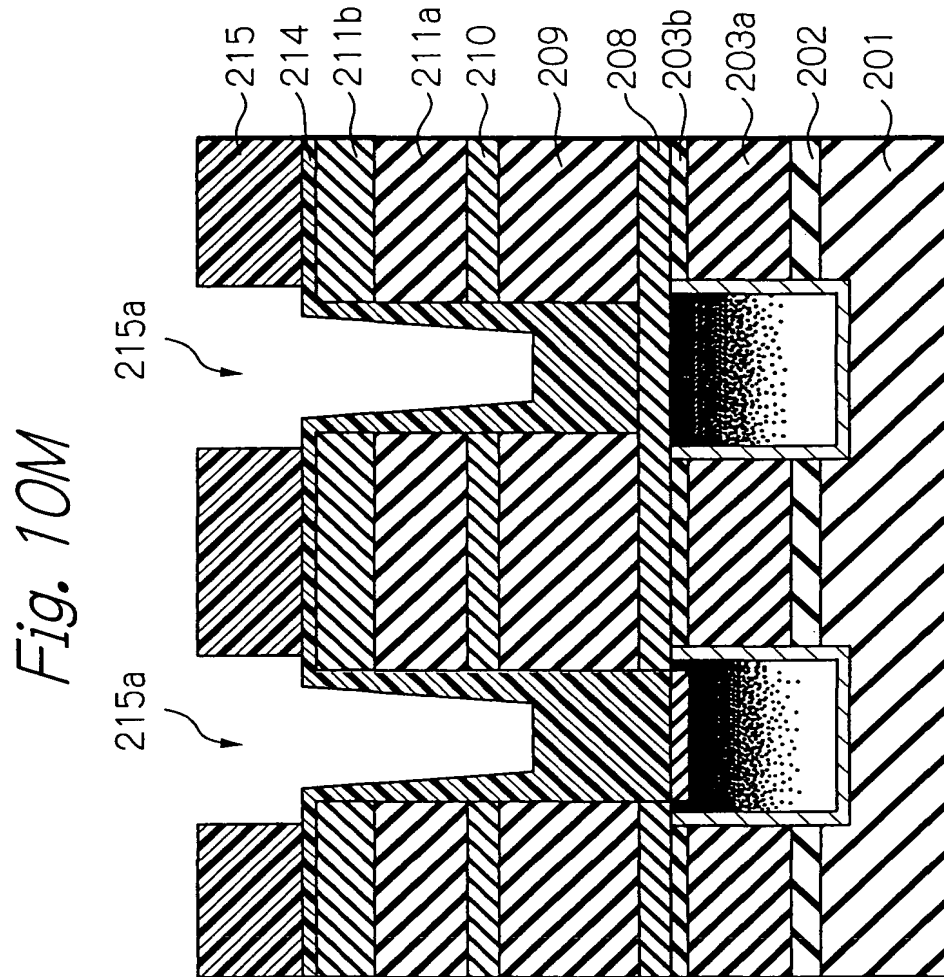
Fig. 10J



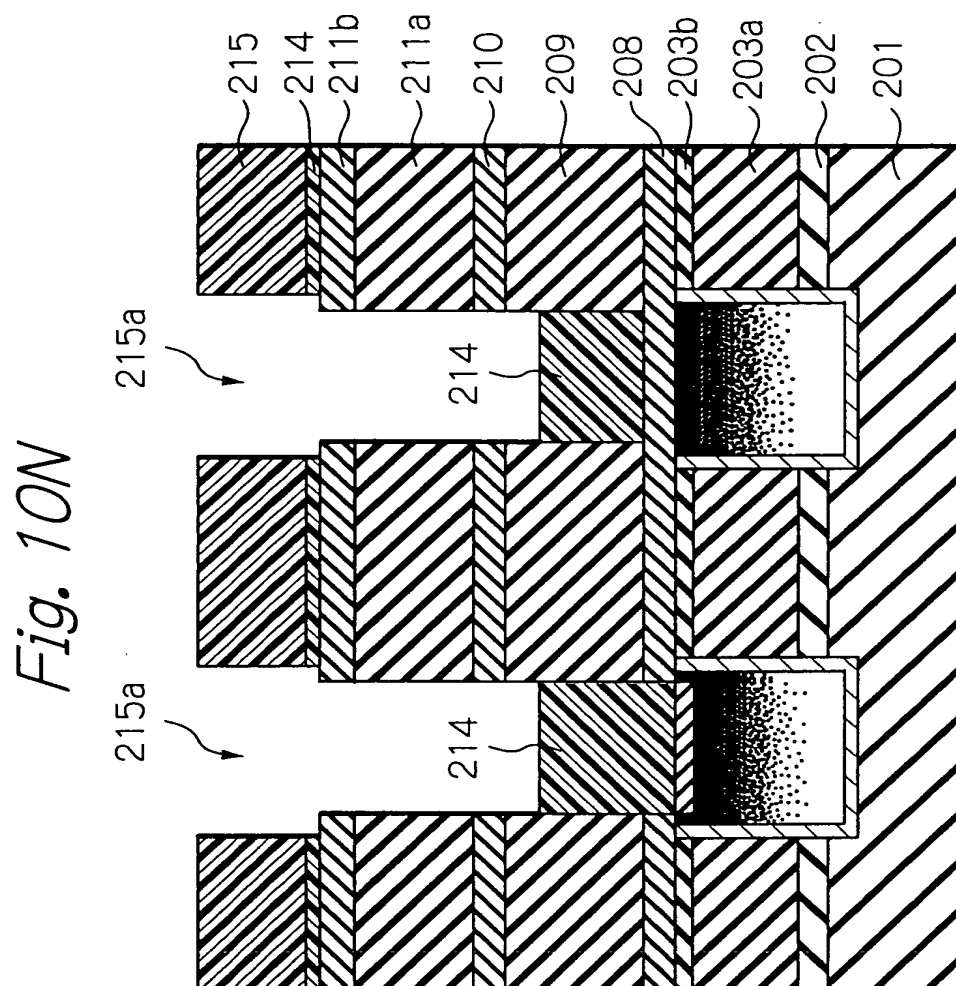


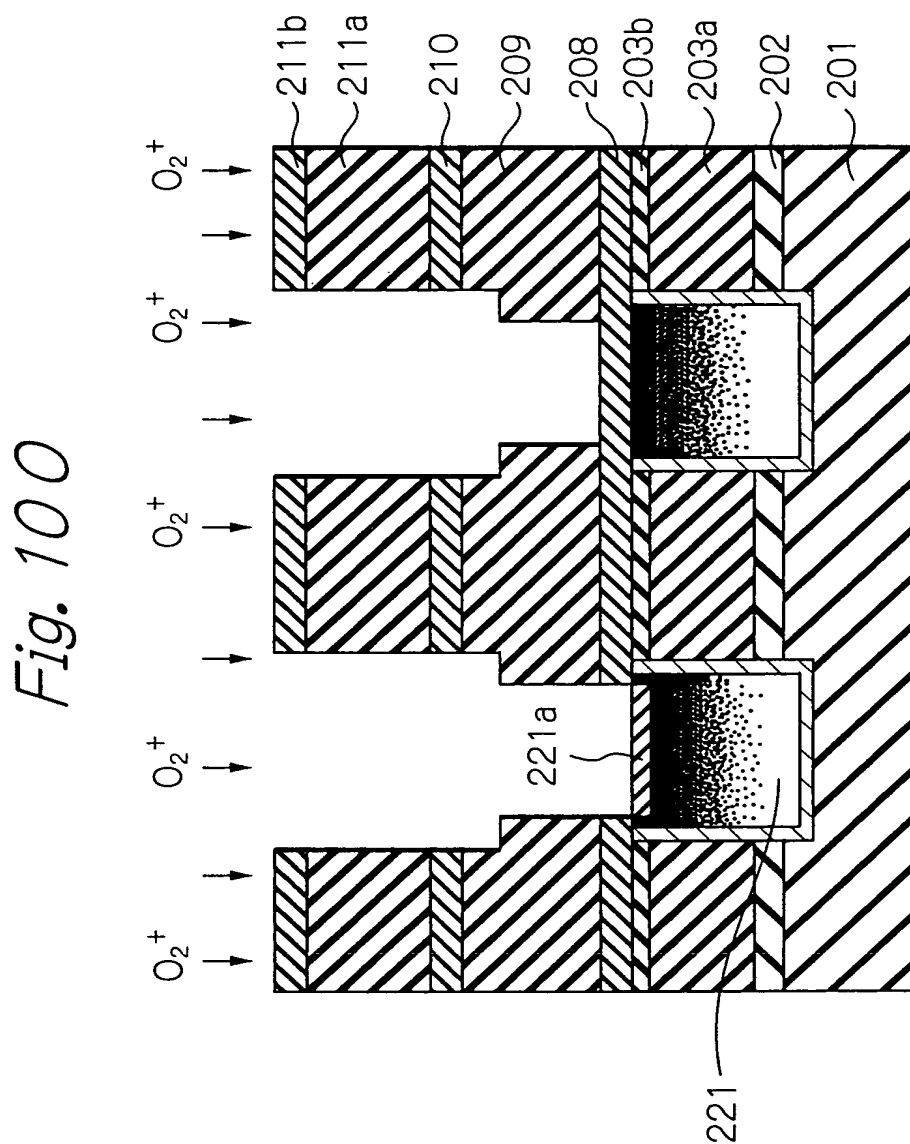


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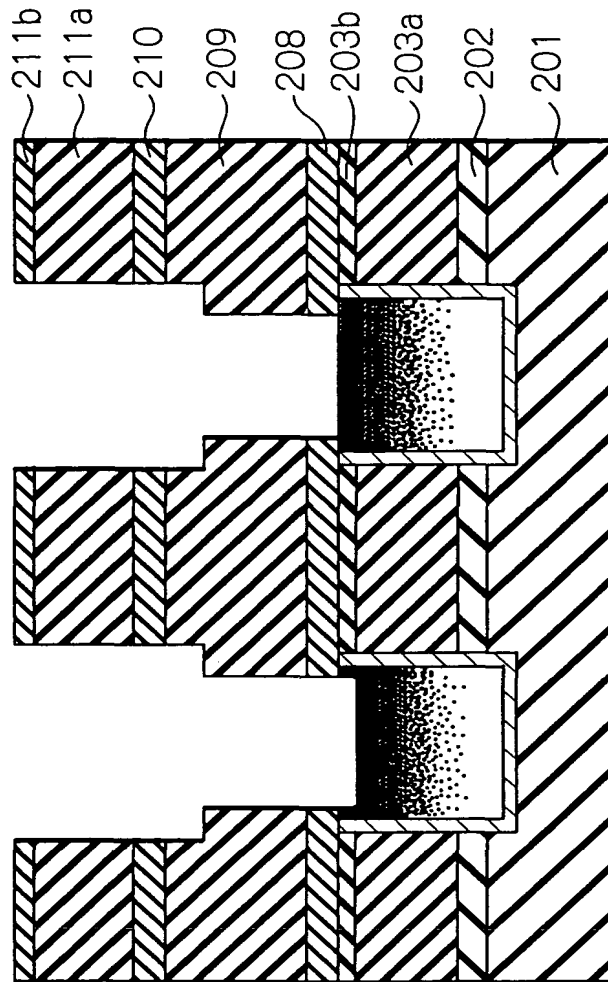




This cross-sectional view shows a substrate with a series of steps or terraces. The substrate is divided into several regions, each with a different hatching pattern: 211b (top left), 211a (top middle), 210 (top right), 209 (middle left), 208 (middle middle), 203b (middle right), 203a (bottom left), 202 (bottom middle), and 201 (bottom right). Two rectangular structures are embedded in the substrate. The first structure, labeled 221a, is located in the 203b region. The second structure, labeled 221, is located in the 203a region. Both structures have a dark, stippled interior and a lighter, hatched exterior. The label 221 is positioned below the structure, and 221a is positioned to the left of its structure.

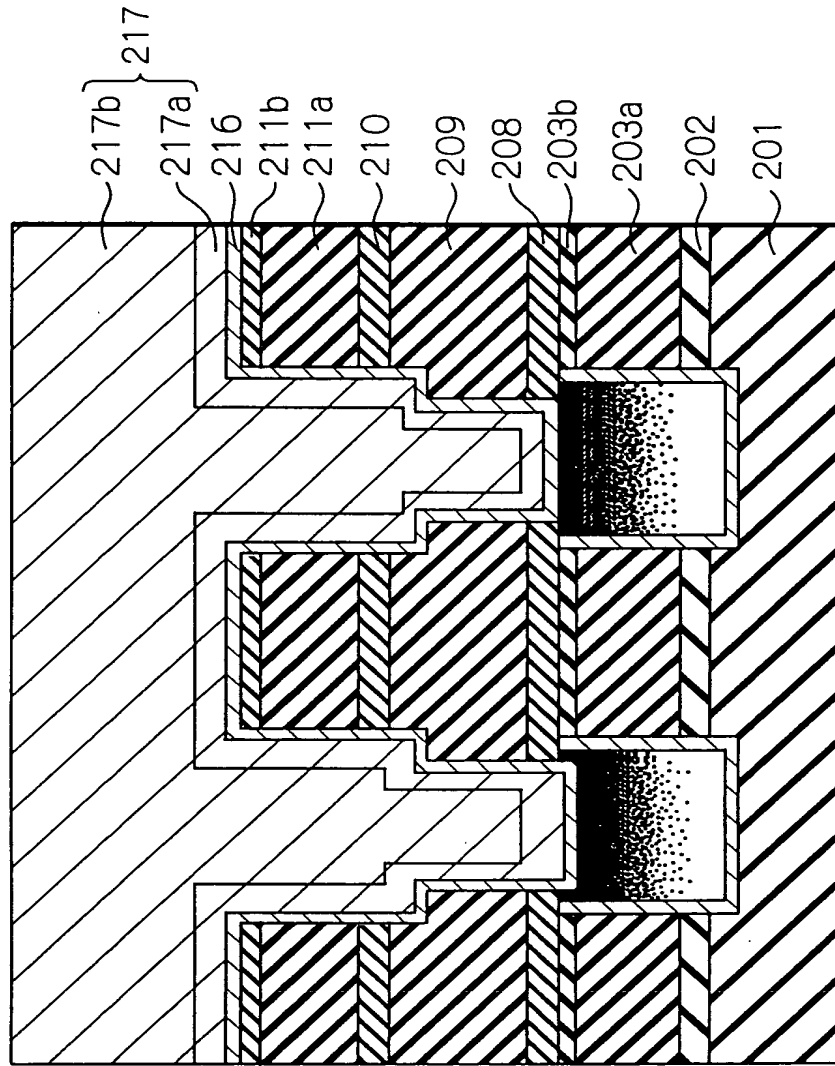
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Fig. 10Q



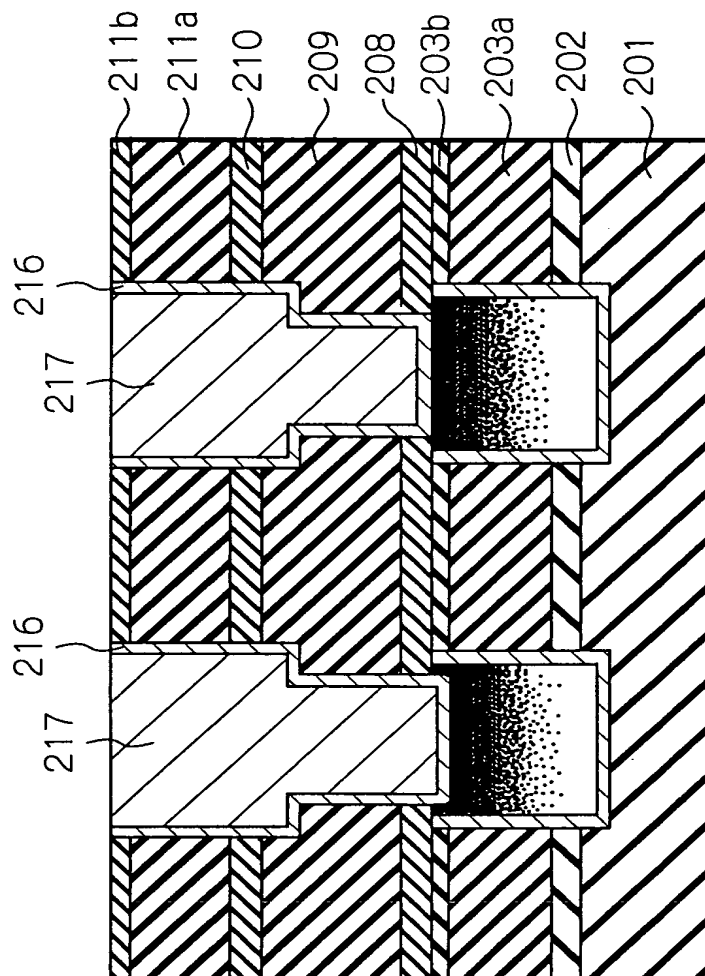
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Fig. 10R



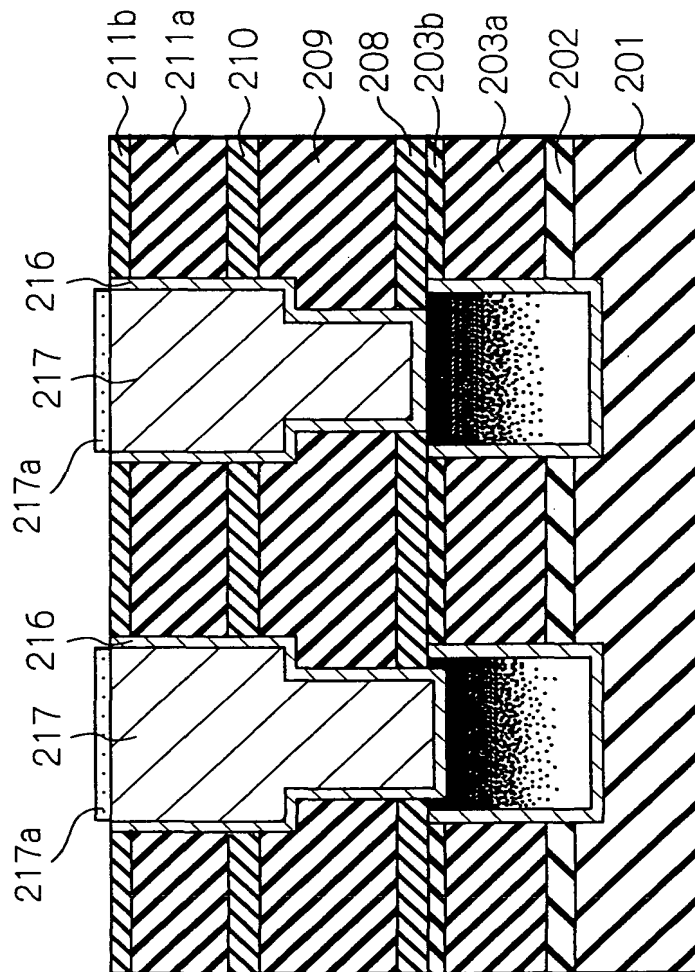
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Fig. 10S



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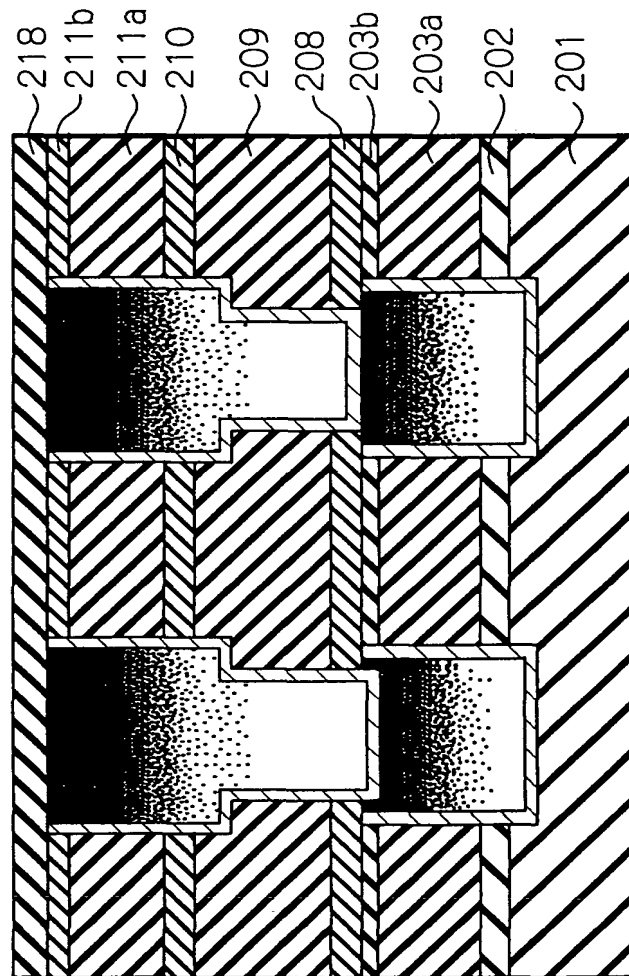
Fig. 10T



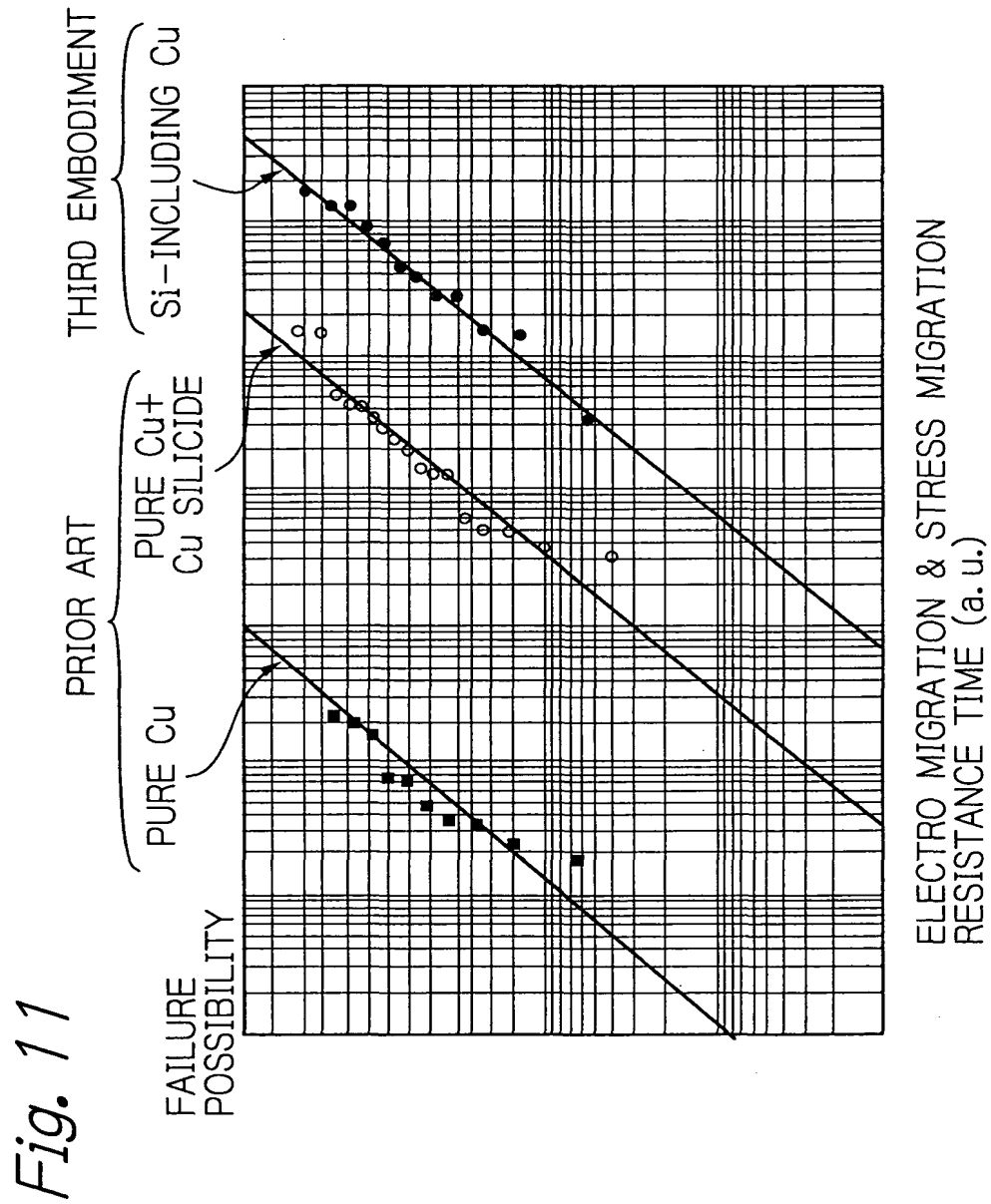
This cross-sectional view shows a semiconductor device with a multi-layered structure. The base layer is labeled 201. Above it is a layer 202, which contains two rectangular regions labeled 203a and 203b. These regions are filled with a stippled pattern. Above layer 202 is a layer 208, which contains two rectangular regions labeled 209 and 210. These regions are filled with a cross-hatched pattern. Above layer 208 is a layer 211, which contains two rectangular regions labeled 211a and 211b. These regions are filled with a diagonal hatched pattern. The top surface of the device is labeled 216. The bottom surface of the device is labeled 222.

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Fig. 10V

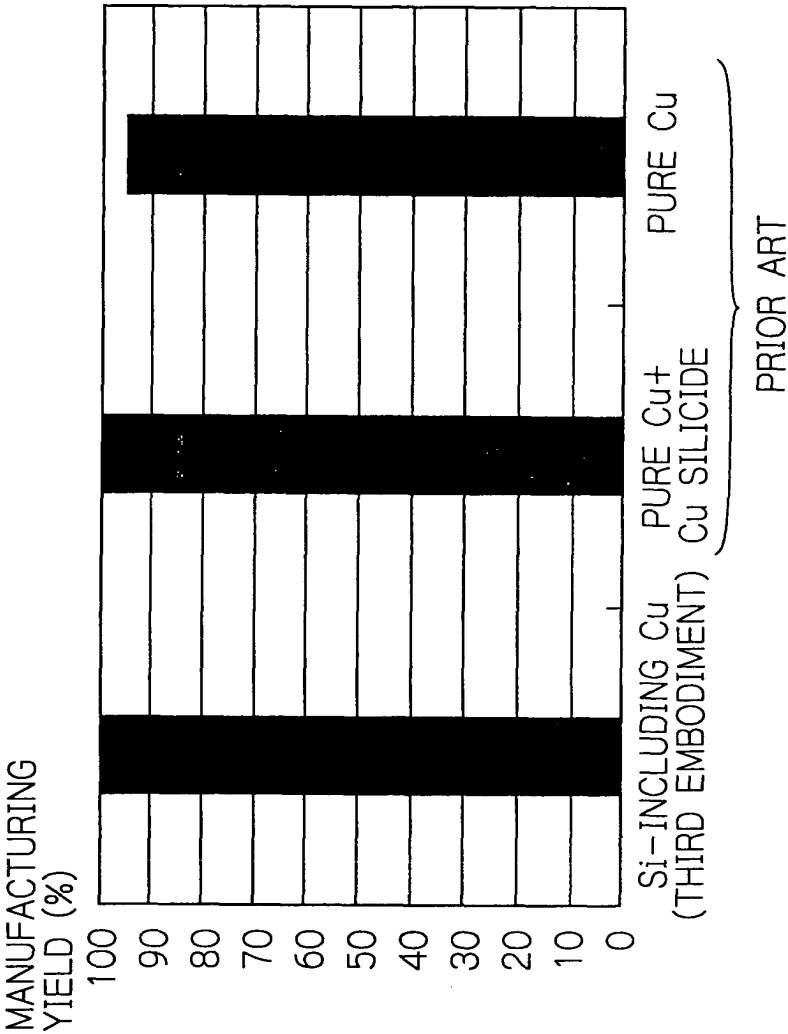


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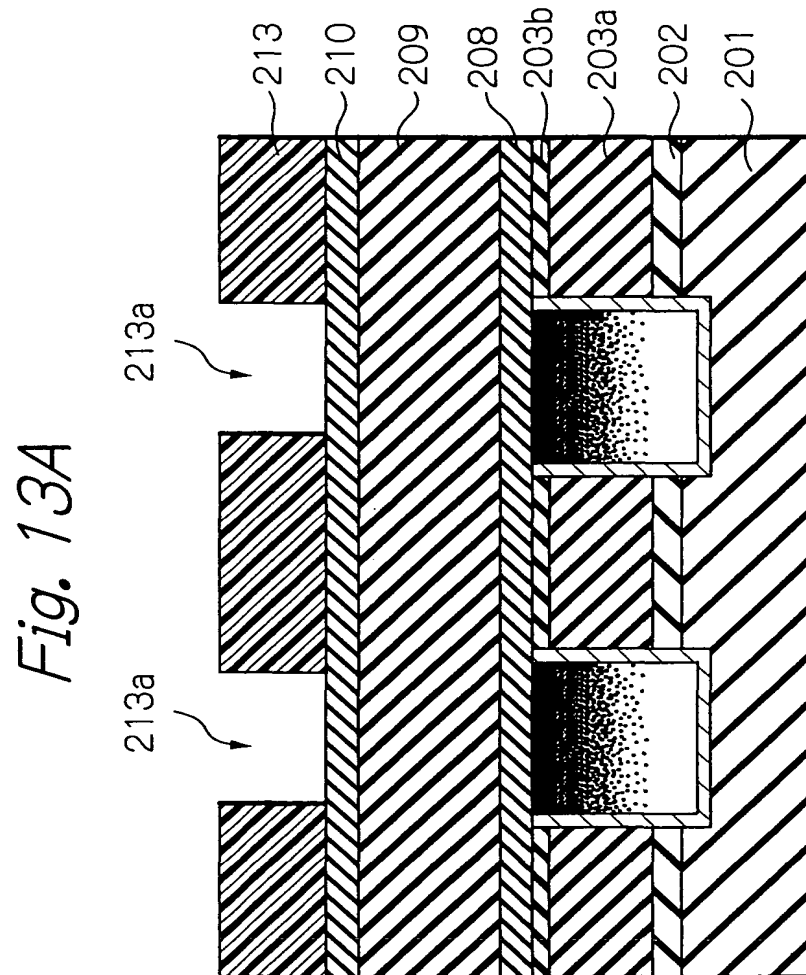


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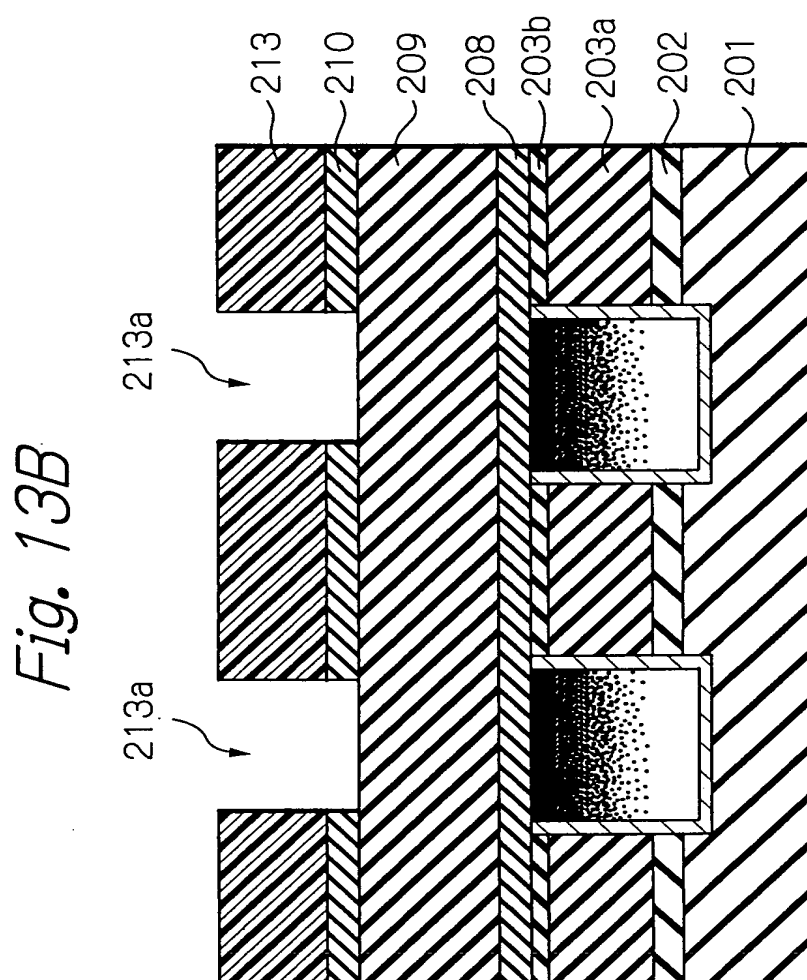
Fig. 12



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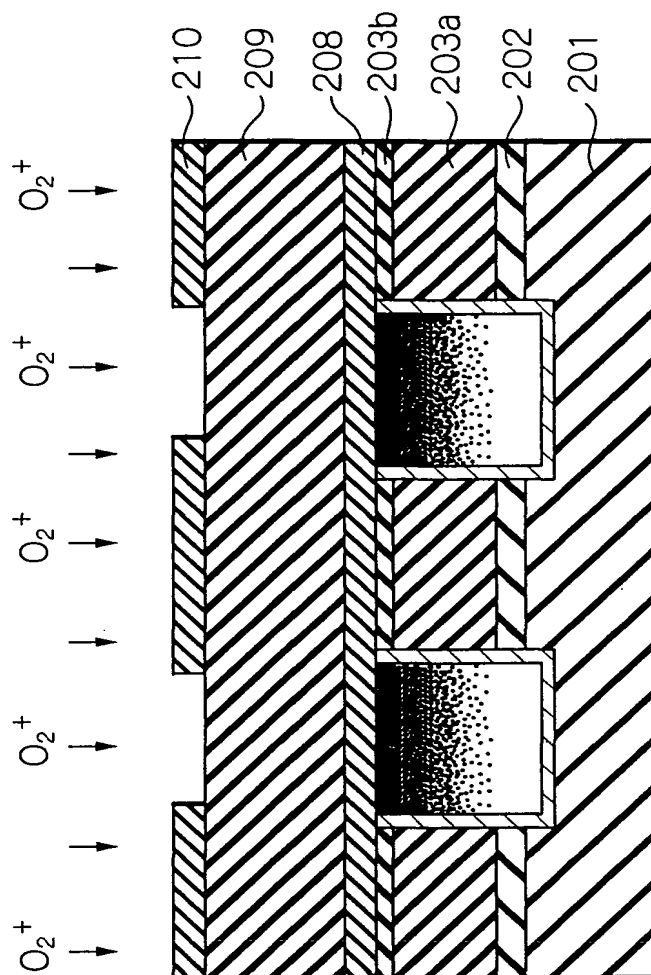


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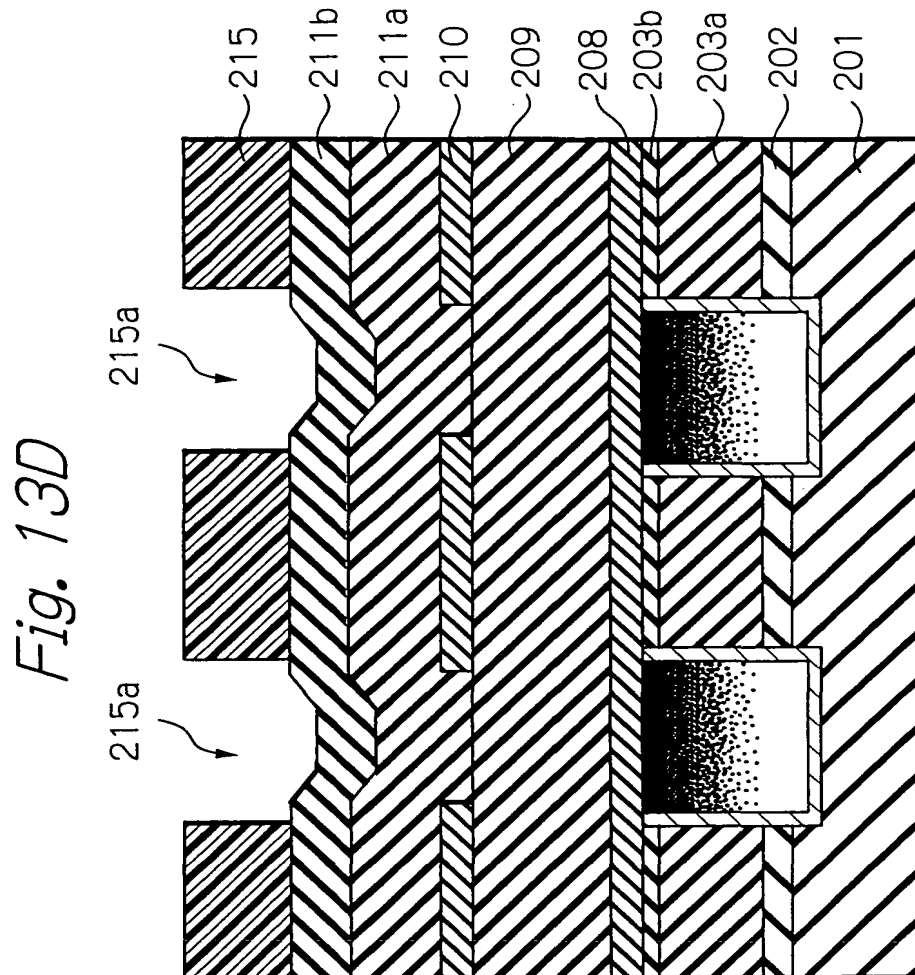


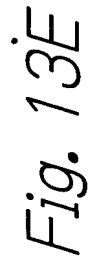
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Fig. 13C



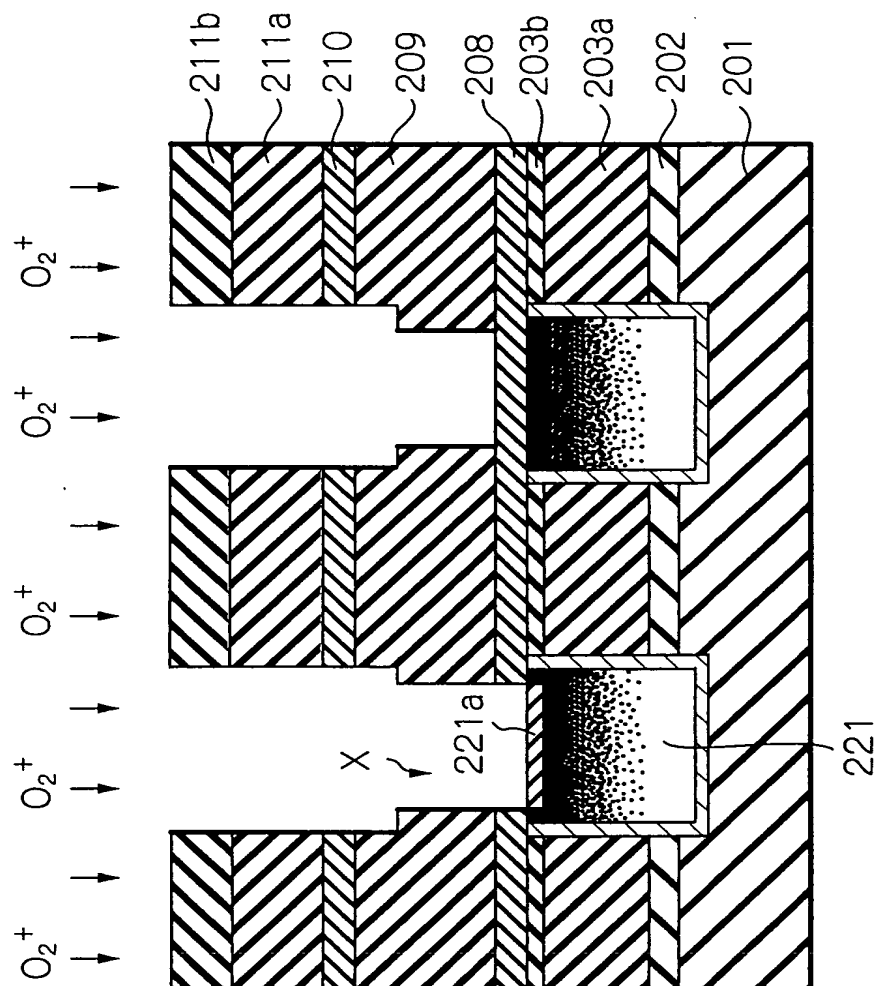
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87





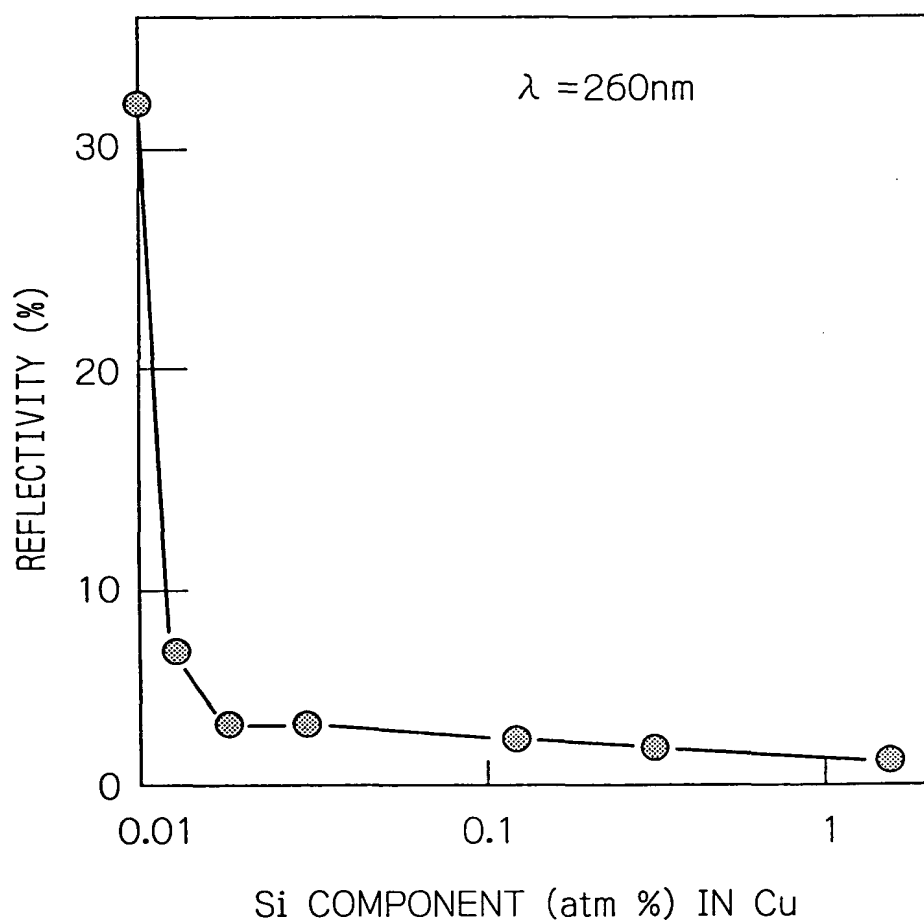
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Fig. 13F



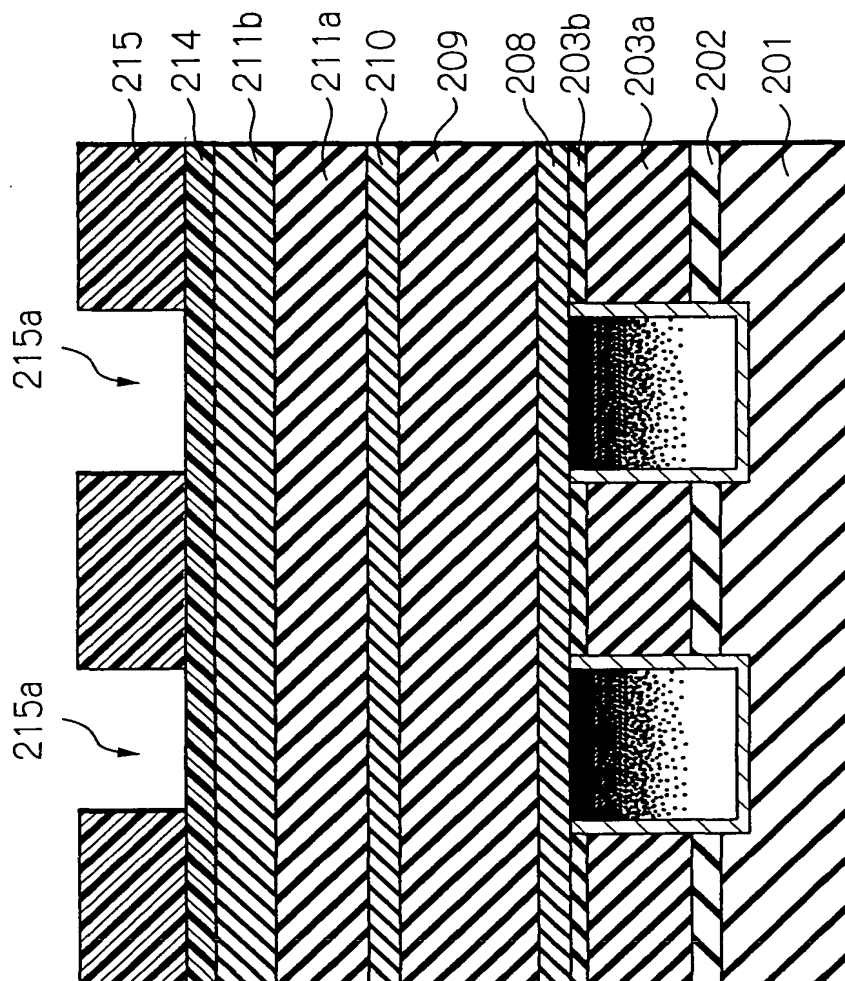
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Fig. 14



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Fig. 15A



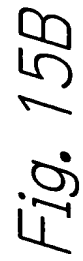
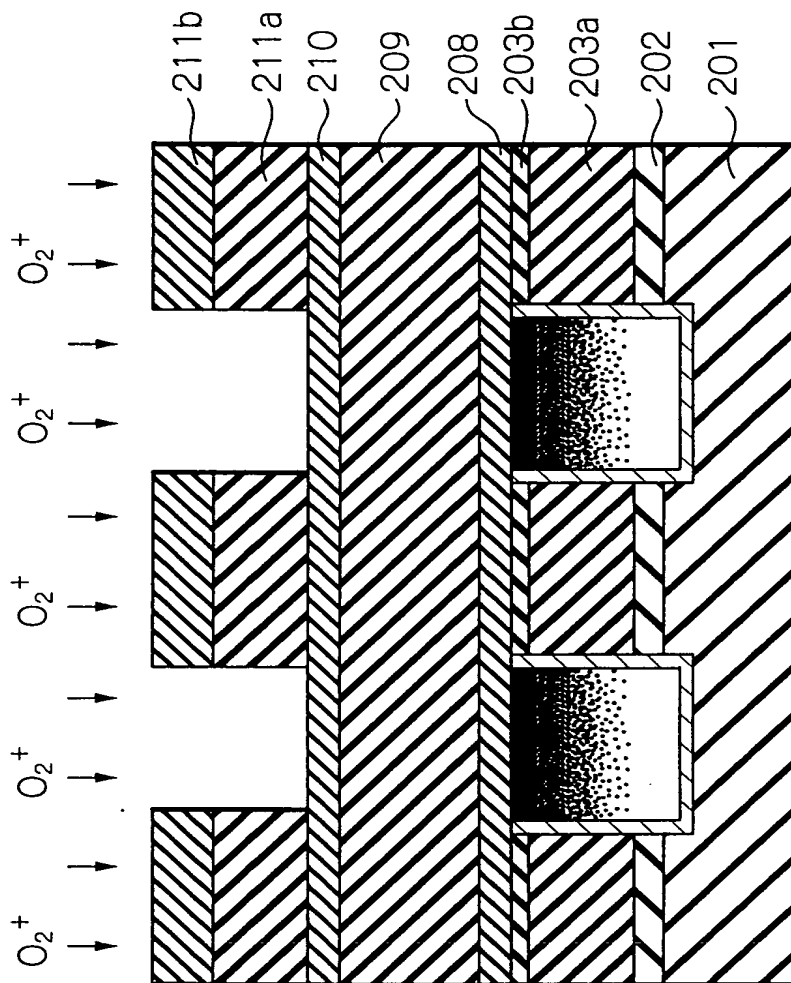
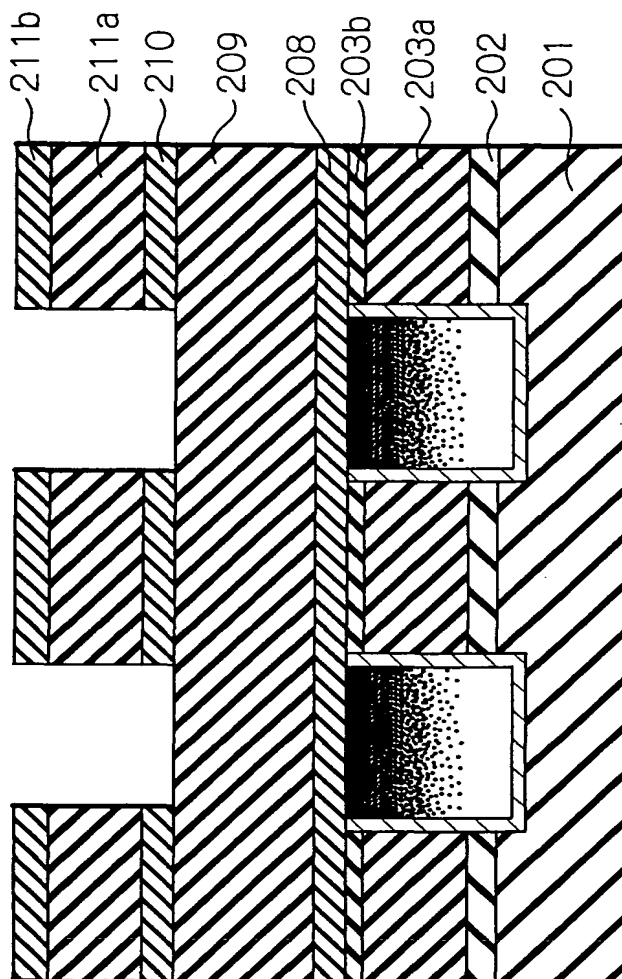


Fig. 15C

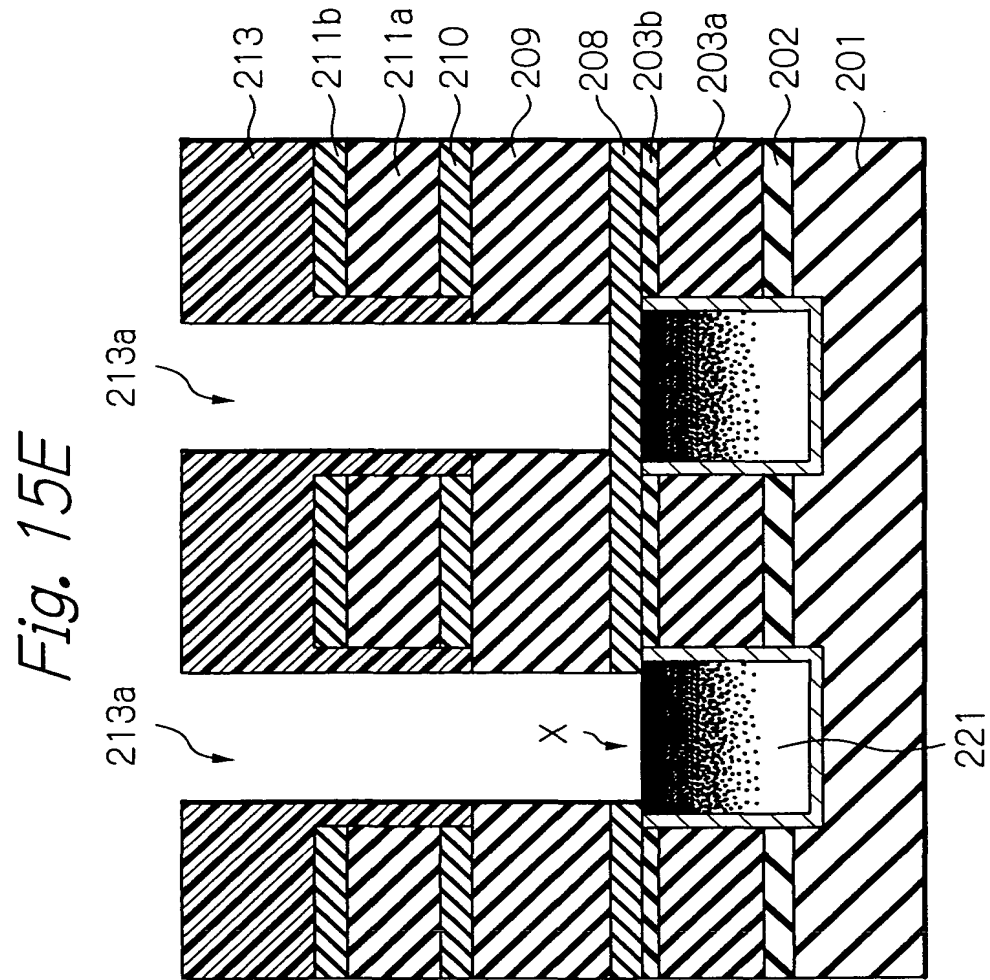


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Fig. 15D

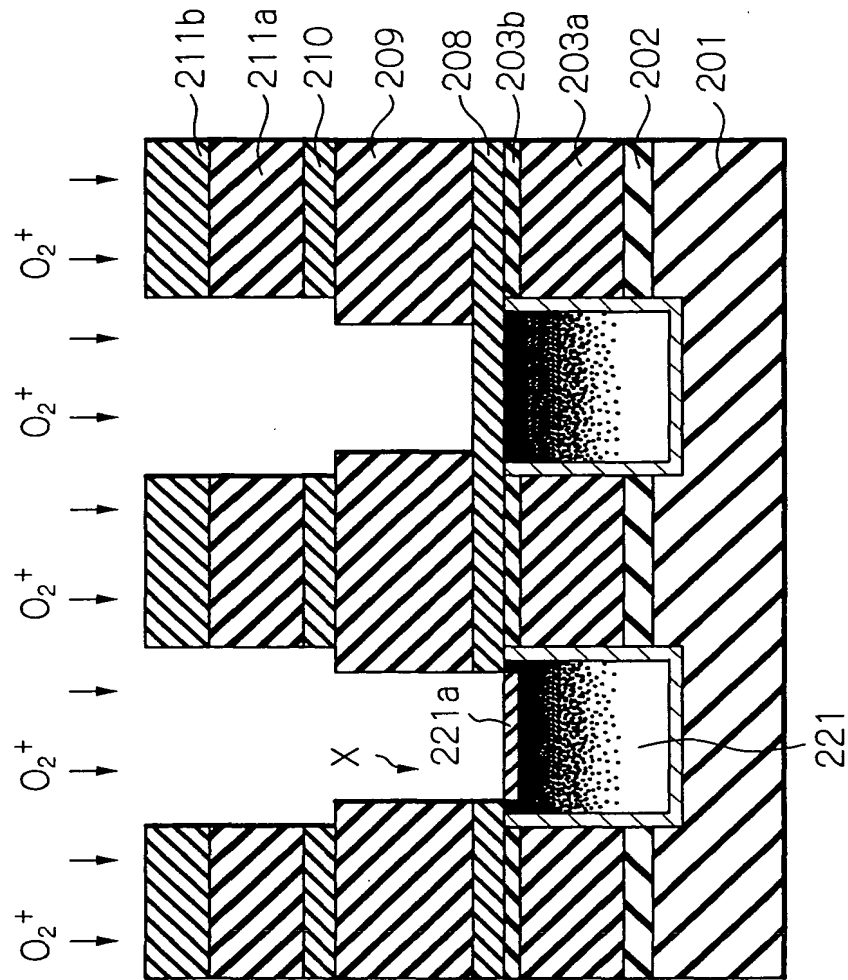


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87



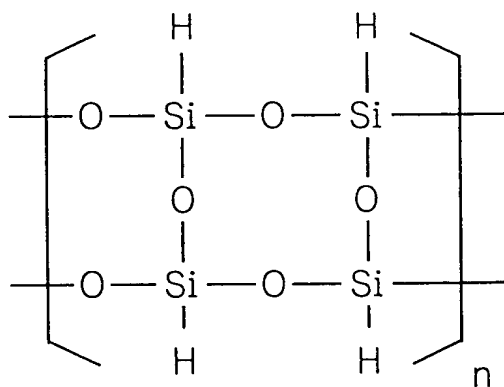
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87

Fig. 15F



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Fig. 16A

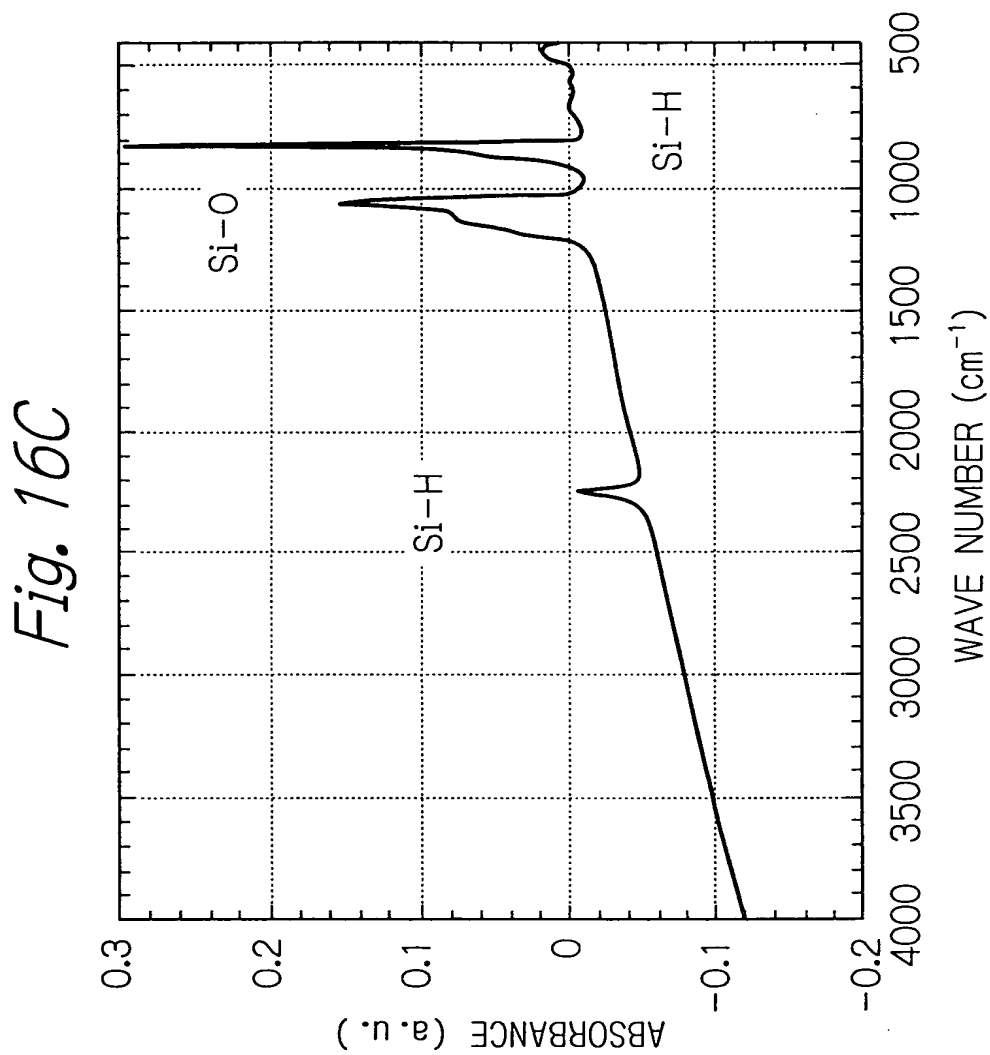


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Fig. 16B

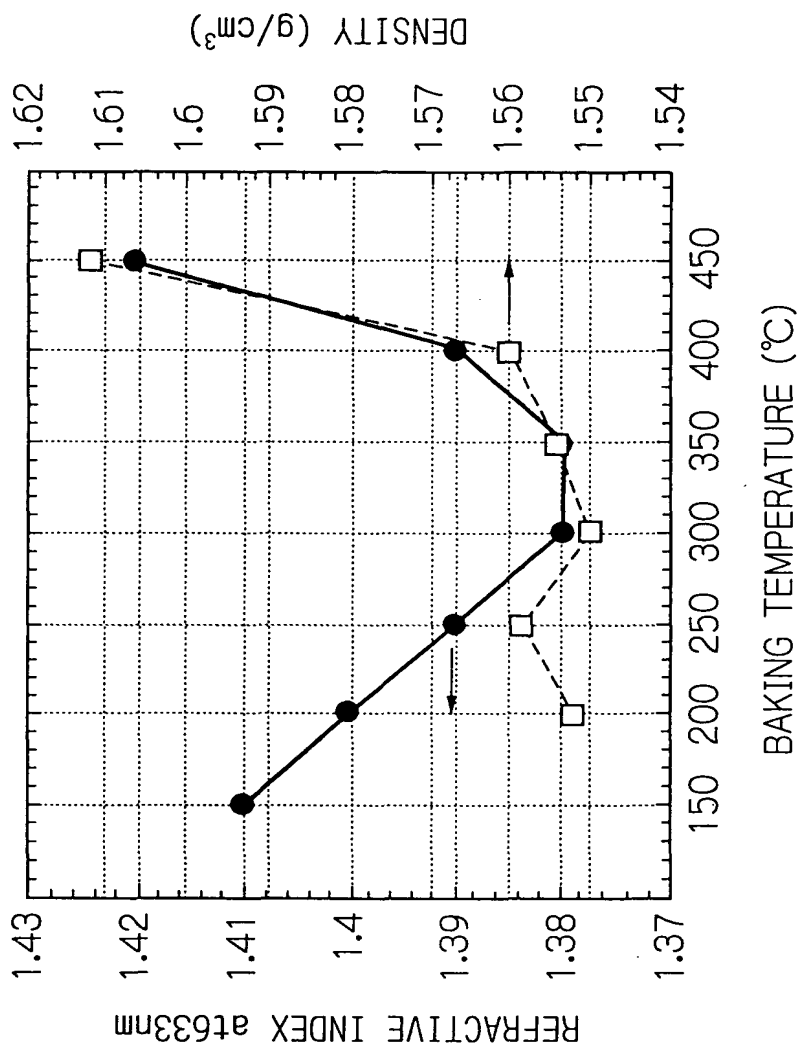
DIELECTRIC CONSTANT	2.9 at 1MHz
REFRACTIVE INDEX	1.39 at 633nm
STRESS	7.00E+08 dyne/cm ²
HARDNESS	0.9 Gpa
SHEAR MODULUS	6 Gpa
THERMAL EXPANSION RATIO	18 ppm/deg-C
GLASS TRANSITION POINT	none
THERMAL CONDUCTIVITY RATIO	0.31 W/mk@25deg-C

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Fig. 16D



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Fig. 17

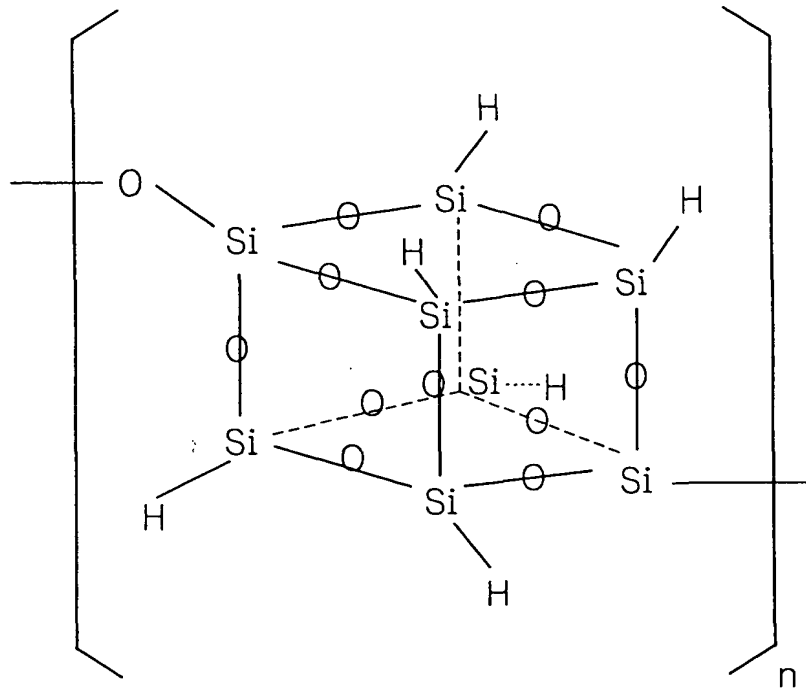
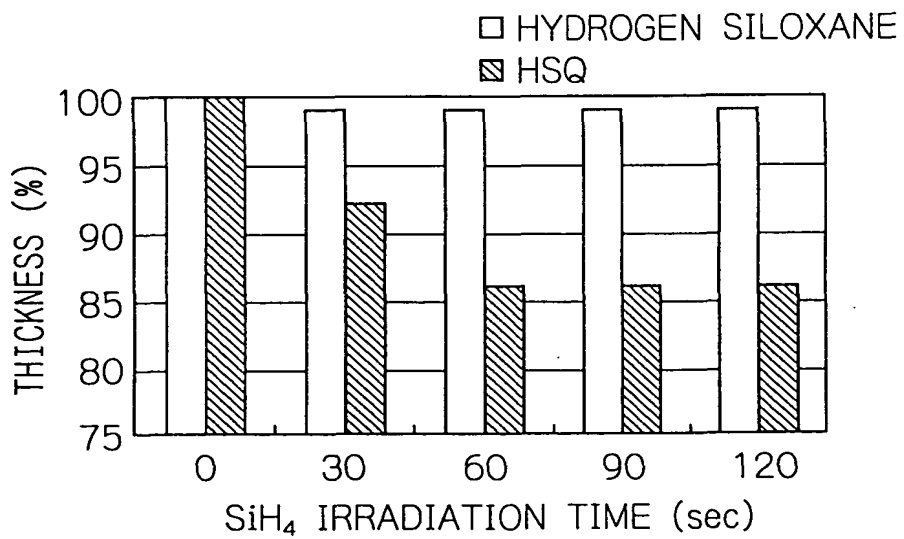


Fig. 18



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Fig. 19

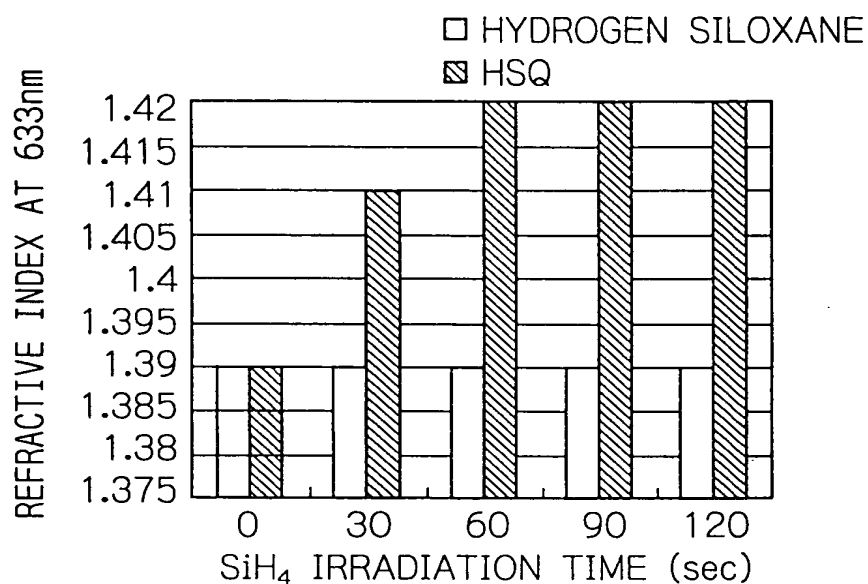
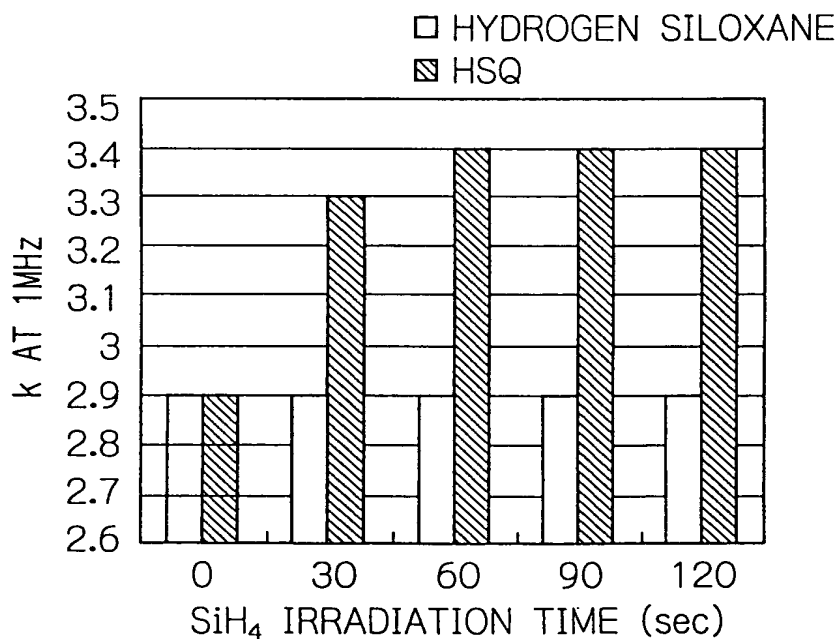


Fig. 20



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Fig. 21A

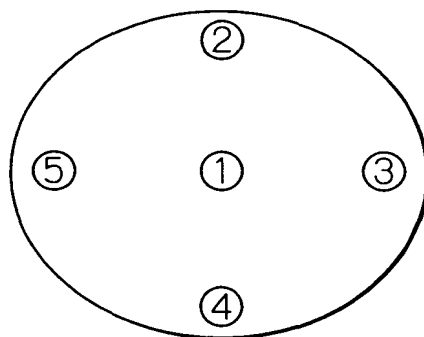


Fig. 21B

	①	②	③	④	⑤
HYDROGEN SILOXANE	957	981	915	922	932
HSQ	1198	1232	1007	1101	1058

(Å)